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# ***JPRS Report***

## **West Europe**

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# West Europe

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6 OCTOBER 1988

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## BELGIUM

### Van Cauwenberghe on Regional Issues, Socialist Party

36140029 Brussels KNACK in Dutch 6 Jul 88 pp 28-32

[Interview with Jean-Claude Van Cauwenberghe, mayor of Charleroi, by Daniel Buyle: "Happart Knows Enough Dutch"; date and place not given]

[Text] Jean-Claude Van Cauwenberghe or "Van Cau" as the people call him, is a remarkable prodigy in the eyes of the PS [Socialist Party]. In 1982 he took part for the first time in the community council elections in Charleroi and promptly became mayor there with an absolute Socialist Party majority. Van Cauwenberghe said goodbye to the political community of the Brussels Wetstraat [district of Brussels where the majority of the government buildings are located], where he had been an inconspicuous MP. He inherited his taste for politics from his father, Andre Van Cauwenberghe, who himself had been an alderman, a senator, and an undersecretary for the Walloon socialists.

Van Cau is a dyed-in-the-wool city government man. Early in 1983, when he donned the mayoral sash of the second largest Walloon city after Liege, he discovered an enormous hole in the municipal coffers. In 1982 Charleroi had a deficit of 1.8 billion and an accumulated indebtedness of 4.5 billion. After 3 years that hole had been filled in and Charleroi had a surplus in its budget. Within the shortest possible time, Van Cauwenberghe built for himself a solid reputation as a competent administrator. But he has still greater ambitions: Charleroi has to become a new and dynamic city. For this reason, Van Cau becomes angry when he sees the familiar brown and beige touristic signboards installed along the highway near Charleroi. The name of the city does not appear there even once, although the designation "Pays Noir" ["Black Land," referring to the heaps of slag and the ever-present coal dust of the mining era] does. "That name evokes only the dark days of the past and has nothing to do with the new quality image that I would like to see bestowed on Charleroi," says Van Cauwenberghe. He finds it scandalous in comparison with the highway signboards near Ghent: "Even the logo of Flanders Technology is on them!"

On his own, Van Cau formed a committee to design a new signboard for Charleroi. For that matter, the mayor urgently desires to do something for the lamentable appearance of his city. The region is cluttered with old, abandoned, industrial sites—somber testimonials to the past glories of the coal and steel era. He wants to appropriate 100 million a year over the next decade in order to clean up this mess. Such a renovation will cost 7 million per hectare. Van Cauwenberghe dreams of attractive living space with a lot of greenery about and with top-flight industrial technology that is friendly to the environment. Charleroi must be a pleasant place to live.

But as mayor of Charleroi, Van Cauwenberghe is not so well-known in Flanders. He has in fact been in the news lately because among socialists he is one of the greatest opponents of the government agreement, especially of the Voeren compromise. With the momentum provided by Van Cau, an overwhelming majority of the powerful Charleroi party federation shot down the agreement, in the opinion of the other local socialist party leader, Minister Philippe Busquin of Social Affairs, and party chairman Guy Spitaels. Why does Jean-Claude Van Cauwenberghe support Jose Happart so strongly?

[Van Cauwenberghe] Because more than many others I am involved in the struggle of which Happart is the symbol. In 1984 before the European elections, we waged a campaign here in Charleroi for Jose Happart. My party and regional colleague, Ernest Glinne, absolutely disagreed with this. I then distributed posters which portrayed me standing with Happart. That was not appreciated by everyone. I played an important role in the enrollment of Happart in the PS. Since then Happart has been here again and again. We have worked together in all the campaigns. I was co-chairman of the congress for "Wallonia, a European Region," here in Charleroi. Happart and I have become true friends. More than others, I felt after the present government agreement that Happart had been deserted by us. I shall continue to stand by Happart, while others in the PS, on a purely intellectual basis, think that they have found a solution. Because I stand more closely by Happart, I have, contrary to my usual practice, adopted a more radical position.

[Question] You lost the argument in the PS. So do you still play Happart as a trump card?

[Answer] The PS has taken its stand, the government agreement has been approved, but a great many more details must be specified in such an agreement. A good number of blanks must be filled in by means of the bills proposed. I am looking very attentively at these. I am trying to get the best out of those bills, within the framework of the government agreement. In this matter I differ with Jean-Maurice Dehousse, who rejects the government agreement totally. I say to my party colleagues: Be sure to pay attention to certain cases that may develop, for if you do not, it will become worse for us than it already is.

[Question] Do you still stand squarely behind Happart?

[Answer] Jose Happart is a symbol for the Walloons. For many, Happart represents the opposition force in Wallonia, the call for a more independent Wallonia. It is not only a question of Jose Happart as a person, it is also a question of the Walloon idea that stands behind him. And over and above that, there is the respect for the autonomy and democracy of the municipality. So I really have thousands of reasons to hurl myself into the same fray at Happart's side. For this reason, Walloon politicians keep on supporting Happart. I recently had an

opinion poll conducted by an independent agency. One of the questions was: "Was Van Cauwenberghe right in defending Happart against everyone?" Of those polled, 69 percent replied yes, 16 percent no and 14 percent gave no answer. So a wide majority supports me.

### Troublesome Partner

[Question] Can the internal opposition in the PS still produce results, inasmuch as the government still maintains its two-thirds majority in the parliament?

[Answer] Internal opposition no longer makes any sense, since the party has taken its position. In the PS there are always vigorous discussions, but we are also a disciplined party. I take this into account as well. The "internal opposition" within the PS is thus more of a tendency which, with respect to the government agreement, tries to avoid further concessions or to score points on obscure secondary matters. We thus exert pressure for implementing the agreement. Many cabinets have in fact fallen over the implementation of a government agreement. We shall demonstrate that there is an important tendency of the Walloons that has not been satisfied for a long time and that they are most anxious for the completion of the agreement. This need not immediately lead to a rebellion if it comes down to votes in parliament. But we shall see: speedy regionalization, determined PS opposition against the Flemish interpretation of the laws governing those communities where the minority language option is allowed, the negative attitude of Spitaels against the cooperation between Sabena and KLM. We do not wish to cause a split in the party, but to exert massive pressure. Therefore the PS will be a troublesome governing partner on every dossier, for Spitaels knows that he has a huge, discontented wing that he must satisfy in order to be able to neutralize it politically.

[Question] On which points would you like to see improvements in the Voeren compromise?

[Answer] On four points. First, the fact that the deliberations in the college of aldermen are kept secret. If a Flemish alderman breaks that secret and lets the cat out of the bag that French is spoken there, for example, he must be punished by the board of aldermen. Again, the Limburg provincial governor may have no right to take a second initiative if his first decision is blocked by the college of ten governors. Thirdly, that college of governors must receive the right to issue summons. Now one reads in the government agreement that the Limburg governor need not submit his decision to the 10-man college if he has made that decision regarding a transgression of the language law. Well then, I want that college to be able to hold up to scrutiny every decision of the governor. Finally, it must be clearly stipulated in the bill that a mayor's knowledge of the language may develop and grow. Thus Happart should not become the victim of an earlier judicial pronouncement. Because he never knew any Dutch at all or insufficient Dutch does

not mean that he will remain in that condition and that he must atone for an earlier pronouncement. Because you had the measles once does not mean that you will continue to have them. I am determined that the PS MPs should alter the Voeren agreement on those four points.

[Question] The PS won the elections thanks to Happart. Then the party leadership dropped him. What consequences will that have for the PS?

[Answer] Much will depend on what is now going to happen. Jose Happart has said that he will not abandon the PS. And right he is! Happart must continue his battle for Wallonia. The best place for this remains within the largest Walloon party. But the political evolution of the next few months will be decisive. Will Happart be proposed for mayor, yes or no? What place does he get on the European PS list? Does he still get a place there? A great deal will depend on this. In any case, I hope that Happart will remain with the PS, but also that the PS will continue to accept him as a member although he is not a submissive member. Another government will replace this one, and then the community problems will come up for consideration. Happart will remain a symbol for the Walloons and will continue to act as a lever for the future of Wallonia. I hope that he will play that role within the PS.

### Miscalculation

[Question] Has your party chairman, Spitaels, dropped Happart in order to get the socialists back into the government after more than 6 years?

[Answer] In my opinion Spitaels has not sufficiently estimated the scope and sensitivity of the Voeren question. And given the fact that Voeren and Happart have become such symbols, that has overshadowed the other important issues. One may not underestimate the significance of the Happart symbol. Why did the voters choose the PS? Because we advocate federalism at all costs? Because we are economical administrators? Or because we wanted to defend the dignity of Wallonia by choosing Happart as a symbol? Anyone who chose the latter as a reason to vote for the PS now feels deluded.

[Question] If Happart cannot become mayor of Voeren after the community council elections because he knows no Dutch or not enough Dutch, what then? The Flemish ministers refuse to nominate him, for example, as a consequence of the government agreement. What will you do then?

[Answer] I shall argue that the PS should not give in. Vice Premier Philippe Moureaux has already said that there is no reason not to propose Happart as mayor. After 1 January it may come down to a test of strength between Flemish- and French-speaking communities. If

Happart says that he knows Dutch adequately and that he wants to play his proper role with respect to the Flemish inhabitants of Voeren, then the French-speaking voters cannot drop him.

[Question] But what if he will not demonstrate his knowledge of Dutch?

[Answer] The question is on what level it has to be demonstrated. If he himself declares that he knows sufficient Dutch, then in my opinion that must suffice.

[Question] But if the Flemish minister of internal affairs, Tobback, or his successor, interrogates Happart in Dutch (as in the case of Nothomb that time) and observes that his knowledge of the language is inadequate, what then?

[Answer] That is against the government agreement. The minister of internal affairs may not require a language examination of any candidate for mayor. The government agreement sets down the only occasions when a protest may be registered against the speech of a mayor.

[Question] On the Flemish side, it has been stated that a secret agreement exists between the governing parties, to the effect that Happart may not again be nominated mayor unless he explicitly demonstrates a speaking knowledge of Dutch.

[Answer] Spitaels and Moureaux told us the very opposite! There is no secret agreement concerning the proposal of names for mayor of Voeren.

[Question] If the minister of internal affairs does not nominate Happart as mayor after the coming community council elections, does that mean the fall of the government then?

[Answer] That would be a cause for war! If on the occasion of his appointment as candidate, Happart himself says that he knows enough Dutch, then that really is an element of pacification. That has to suffice for the minister of internal affairs. In the past six years Happart has had a great many associations with Flemings in his municipality. I believe that in contrast with six years ago his knowledge of Dutch has improved. That must be satisfactory for his service to the Flemish citizens of Voeren.

[Question] You say that you who speak no Dutch yourself?

[Answer] Yes. I find it unfortunate that I do not know any Dutch. But Jose Happart knows it sufficiently well to administer his municipality.

[Question] Van Cauwenberghe is a Flemish name. What is the story of your Flemish origin?

[Answer] My great-grandparents were mineworkers from Limburg who came to work in Bernissart in the Doornik region. My whole family settled there. My grandfather worked in the mines. My father came to Charleroi when he got married. I was the first Van Cauwenberghe to be born here. Charleroi now has a mayor of Flemish origin who knows no Dutch. (laughing)

### Federalism

[Question] The Flemings find that the Walloons have profited for many years from the unity of Belgium. Why do you really want a federated Wallonia?

[Answer] With federalism we shall ultimately gain control over our own levers. Up till now we were always subject to national arbitration. Now we shall be masters of our own governmental institutions, public works, infrastructure and municipalities. We shall have more control over our own destiny. With the tightened state of affairs in budgetary matters, the Walloons will not notice very much immediately. But on the medium term we shall be able to pursue a truly alternative policy for Wallonia. The first years will still be difficult. In a time of crisis you cannot give the policy a socialist color, because then you are doomed to a policy of deliverance. But as soon as the economic situation improves, we shall be able to create prosperity with federalism in Wallonia.

[Question] How do you envision relations with Flanders in the future?

[Answer] They will be completely different. Wallonia and Flanders will associate with one another on a footing of equality. If we find a reasonable solution for Brussels, and that's the way things are heading right now, Flanders and Wallonia will pull together more easily. Between any colonizer and its colonized people dialog is difficult, but between two autonomous states, cooperation is indeed possible. It is not simple to make a clean separation from bed and board after 150 years of joint history, but within a few years Flanders and Wallonia will be able to get along well together, to their mutual advantage.

[Question] Do you see the possibility of a compact between the two participating states?

[Answer] Certainly. We need total independence of two states. But a federal structure with clear agreements concerning precisely what the two regions, Flanders and Wallonia, have mutual control over is doubtlessly the best solution.

### Center

[Question] The profile of the PS has clearly changed: its direction is less leftist and more centrist.

[Answer] The PS is now indeed less doctrinaire. In all European countries you see a sociological evolution: All the socialist parties are making a swing toward the

center. The voting public must be expanded. We no longer wish to appeal exclusively to manual laborers, but also to self-employed shopkeepers, tradesmen, junior executives, etc. The sociological basis of the PS has thus become broader. In some cities we have also proven to be good administrators. From now on we are also no longer against private enterprise. We now advocate the value-added tax, for without wealth you cannot have any redistribution of wealth. The language usage of the PS has changed, but also the sphere of influence of the party. So here in Charleroi the PS is exemplary. We are no longer the party that is for the workers and against the bosses. Our combat spreads across a broad front, and that gives us a broad, absolute majority.

[Question] Do you deem it possible for the PS to hold the absolute majority in all of Wallonia?

[Answer] We came very close to it at the last parliamentary elections. To have the absolute majority is of course our dream, but that is a complicated affair. To reach that goal we must integrate the Walloon dimension completely into the PS. We succeeded in absorbing the extremist Walloon parties. That strengthened the PS.

[Question] But may that not change once again after the government agreement of Martens VIII?

[Answer] Precisely. In Walloon circles there is broad displeasure and disenchantment. That cannot be denied. We must once more win over the trust of the Walloons. The Walloon groups must be again cemented into the PS. They may not be allowed to succumb to the romantic temptation to set themselves up independently and once again to present their own lists. Therefore it is absolutely necessary for Happart to remain in the PS. He is the cement that can hold the pro Walloon elements in our camp.

[Question] In expectation of the eventual PS majority in Wallonia, is the PSC [Social Christian Party] your ally? Does the PRL [Liberal Reform Party] remain the enemy?

[Answer] We have no favored ally. But the liberal positions are still too far away from ours. Ideologically we stand quite close to the PSC of Maystadt. But politically we exclude no one, for otherwise we run the risk of being shoved to the side. And even if the PS ever does hold the absolute majority, I am strongly in favor of governing with a partner. At the moment I find the PSC the most suitable ally.

[Question] Is the PS now closer to the SP than a few years ago?

[Answer] Of course. The governmental negotiations have demonstrated that. Our militant members also expect us to be able to count first of all on the SP in the government, where socioeconomic matters are concerned, before we make a move toward the PSC. In community matters, things

are different, of course. But the fact that we now stand closer to the SP is also attributable to the swerve by the Flemish socialists. They have put aside a number of their points of conflict and like us have mixed water with wine in order to be able to come back into power.

[Question] You have the reputation of being a good mayor for Charleroi. Even Prime Minister Martens praised you for your economical administration. But are you really still pursuing a socialist policy?

[Answer] In a little while that criticism can also be made about the socialist ministers. During the past six years I have had to pursue such a policy in Charleroi. I have not been able to play the generous socialist who could hire people. On the contrary, I have had to retrench, fire personnel, etc. Anyone who has to restore balance to the budget has little time to dedicate to an ideologically colored policy. As a socialist you can then only take care of the least affluent. The difficulty is that you must reconcile your generosity of heart and solidarity with economical administration. In the government the socialists stand for the same piece of work. It will also be said of them: they are good administrators but not terrific socialists.

[Question] Are you a figurehead of the right wing in the PS?

[Answer] I have no difficulty with that notion, although among the Young Socialists I was labeled as too rightist and too subdued. From age eighteen I have followed the same course of action. I am not the type whose political career begins on the extreme left and ends up on the right. I do not complain about my profile. I have always taken care not to make too much of a distinction between my political statements and my actions. It is easy to promise much and to have a pronounced leftist profile, but if you then come to power, you create nothing but disillusionment. I have nothing to do with empty political talk. I try to make social democracy work at the grassroots level. Meanwhile, it does not bother me that people hang a rightist label on me. I have experienced a peaceable brand of politics.

08117

## DENMARK

### Semiannual Poll Finds Schluter Government Losing Popularity

**Bottom Grade for Coalition**  
36130001 Copenhagen *BERLINGSKE TIDENDE*  
in Danish 28 Aug 88 p 1

[Article by Per Lyngby]

[Text] A Gallup poll shows that 44 percent of voters think that the Conservative-Liberal-Radical Liberal [KVR] government has done poorly in its initial phase.

The KVR government has started off badly in the view of the electorate. Only 10 percent think that it has handled things well, and 37 percent somewhat well, during the period it has been in power. In contrast, 44 percent of voters give a thumbs down response.

This is seen in a "barometer reading" that Gallup conducted for BERLINGSKE TIDENDE. Popularity of the [preceding] four-leaf clover coalition was at no point so low, and the KVR government is also less popular than the old VKR government, which lasted from 1968 to 1971.

"This is not so remarkable," said Conservative Party Chairman and Prime Minister Poul Schluter. "The new government has not yet spelled out its policies. This will only be done with the opening of the Folketing in October, and then we will be laying a tough program on the table, a program which will give many a shock and create respect for the government."

The Liberals' chairman, Foreign Minister Uffe Ellemann-Jensen, indeed believes that the KVR government will be more popular when it gets the chance to demonstrate what it can do. "A good starting foundation has been laid for the government's work, and now things can only go forward. This is one reason why we will be able to handle the great tasks facing us this fall," he said.

Niels Helveg Petersen, leader of the Radical Liberals and economy minister, is not surprised over the government's poor showing in the poll. "The entire process surrounding the election and government formation has been rather negative for politicians' credibility in general. It is a challenge for the KVR government to prove that the voters' skepticism is not warranted, and that the government is doing some things right," said the economy minister.

### Poll Results Explained

36130001 Copenhagen BERLINGSKE TIDENDE  
in Danish 28 Aug 88 p 16

[Article by Asger Schultz]

[Text] Perhaps because of all the drama surrounding the formation of the Conservative-Liberal-Radical Liberal [KVR] government, it is very far from having the popularity which the four-leaf clover government had enjoyed.

In half-year intervals—aside from when especially unusual events make it appropriate—the Gallup Institute conducts surveys of voter assessment regarding the sitting government.

In these studies a representative segment of voters, comprising around 1,000 respondents, are asked the following question: "Do you think the present government has done well, somewhat well or not well in the period it has existed?"

The first survey is conducted as a rule approximately 3 months after the appearance of the new government, and therefore the first survey on the KVR was carried out in August, 1988.

In the table [see following], the results of the most recent survey are seen in comparison with previous surveys of the four-leaf clover government. Only 10 percent believe that the government has handled matters "well"—the lowest level ever—while on the other hand, every second voter gives the response "not well"—the highest level ever.

### "How Has the Government Performed?"

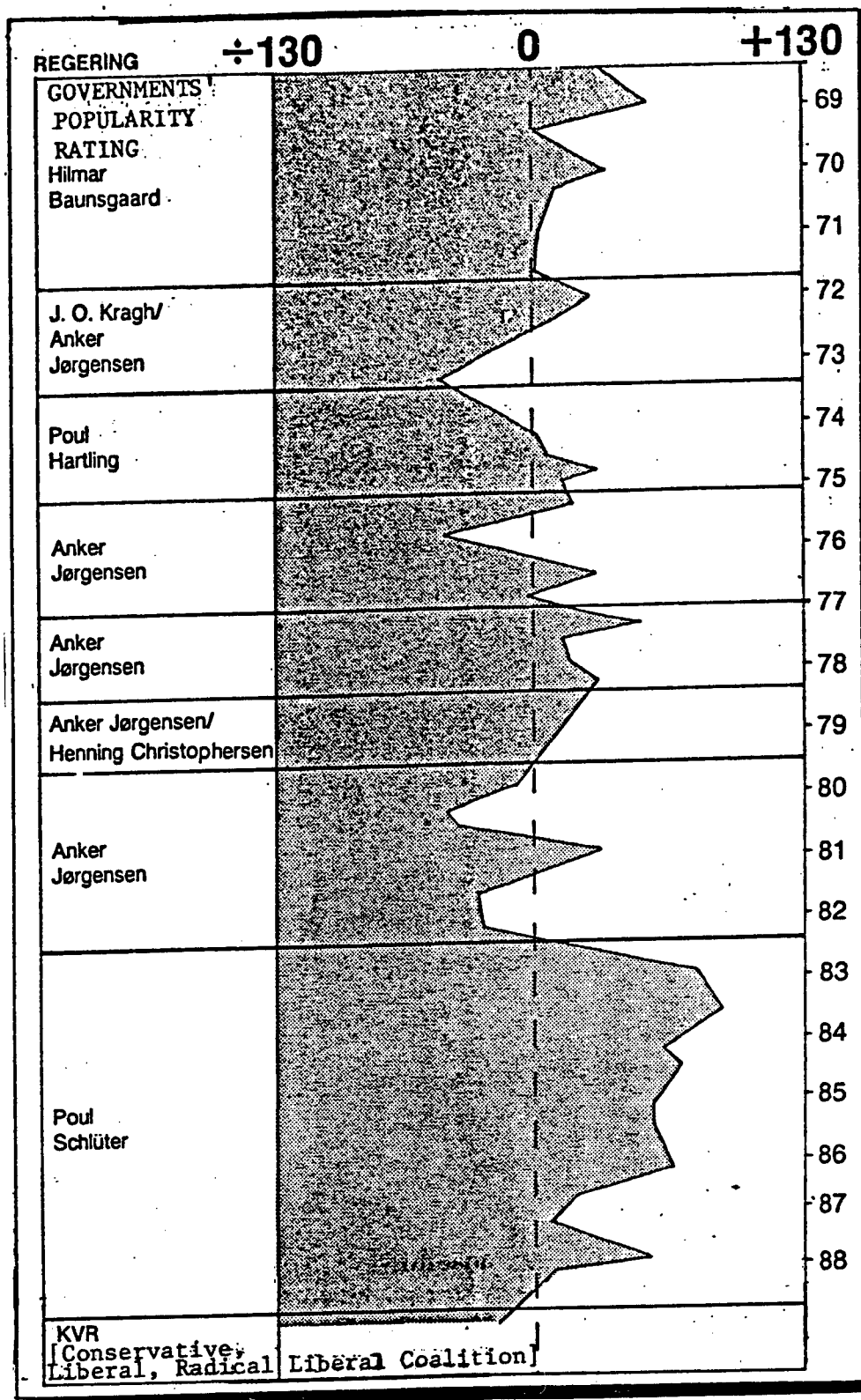
		Well	Somewhat Well	Not Well	Don't Know	Total
		%	%	%	%	%
December	1982	28	36	23	13	100
March	1983	38	39	15	8	100
September	1983	43	39	12	6	100
March	1984	34	40	21	5	100
September	1984	34	42	18	6	100
March	1985	30	42	21	7	100
August	1985	30	42	20	8	100
February	1986	37	36	20	7	100
August	1986	19	42	30	9	100
April	1987	17	42	35	6	100
August	1987	20	48	25	7	100
January	1988	16	43	32	9	100
August	1988	10	37	44	9	100

In order to simplify comparison with polls of previous governments, an illustration showing all results back to the KVR government of 1968 has been provided.

Each poll's results have been converted to a number (score), with the response "well" having been assigned a value of 2, the response "somewhat well" corresponding to 1, and the response "not well" assigned a value of minus 2.

The present survey, conducted in August 1988, accordingly yields a score of minus 31, compared with a score of plus 47 for the four-leaf government after it had been ruling for a similar period.

The illustration is self-explanatory: the decline in popularity of the four-leaf clover government, which already began to drop in the fall of 1983, has continued under the VKR government. And since it is apparently a natural law that a government's popularity declines the longer it rules, prospects for the KVR government ever being popular are minimal.



**Conservative Newspaper Analyzes Poll**  
36130001 Copenhagen BERLINGSKE TIDENDE  
in Danish 28 Aug 88 p 16

[Editorial: "Government Hit by Cold Front"]

[Text] Prime Minister Poul Schluter and the parties behind his government have today received a new shock. Not the first, but the worst. The government's popularity, according to Gallup, has dived to a level so low that there is not much difference from the situation of Anker Jorgensen when he gave up the mantle of government. The figures must give cold shivers—also because they sound an echo of the wide distrust of politicians mentioned by the chairman of the Folketing.

How have things come to this? Haven't the years with Schluter in the saddle given the country a firm krone and an interest rate reduced by half? And hasn't he gotten rid of the enormous government deficit which Anker Jorgensen had let grow? Certainly these things have happened. But these are not the sort of things people are talking about in most homes and in the workplaces. More likely is that people have forgotten the man responsible for the tax pressure in the first place, now that a more honorable policy has replaced [that of the Jorgensen government].

The first Schluter government experienced seeing its popularity soar in the initial period in power, reaching a score not equaled by any other government in recent history. But the higher the expectations, the greater will be the setback when the population—with greater or lesser justification—feels itself disappointed. There is a lot of psychology in all this, and more than is encouraging here. Nevertheless, the negative mood wave is the reality. Just as Schluter has earlier experienced, psychology can render all calculations meaningless. Right now in these years when industry investments and employment leaped, and when things—in the words of the prime minister—were going "unbelievably well," a consumer optimism was created which exceeded all expectations. Therefore people are now having to pay installments on the many new cars and other consumer loans, which in itself might be a little unpleasant.

In the same manner, this superoptimism also gripped employers, who otherwise assert they think in the long-term, and wages received a big boost upward, so that people suddenly found themselves with pain in the form of falling income and employment, as well as a thinned export figure.

It lies in the popular psychology to give the government blame for one's own wrong field dispositions. But neither consumers nor employers reached this point, because the government took action to repair the damage. A tax reform would ease pressure on most taxpayers, a "potato diet" would curb consumption, and a revision of the business-tax schedules would finally bring some

benefit to the hard-pressed export sector. Considered altogether, this was neatly and correctly conceived, but things went so awry that the government thereby exposed its political flanks.

The tax reform did not contain what the people had first envisioned, since instead of local taxes going down, they went up. What was worse, citizens saw themselves confronted with an unfathomable tax system, and the thanks for this cannot least be given to "rules architect" Mogens Lykketoft [Tax Minister under the Jorgensen Social Democratic government], who nevertheless now—ignoring his past record—complains that the government's tax-regulation reform is going all too slow.

Nor have things gone any better with the "potato diet," even though the goals set for its are justified. With its retroactive provisions and technical problems, it suffers from defects which are seeking and have found their scapegoat. The same applies to the business tax reform, which was similarly well intentioned, but which nevertheless is felt unreasonably hard by many small firms.

All in all, annoyances have grown, and optimism has been replaced by its opposite. The last election gave a hint of this with a slight move to the right and a government-formation process under such confusing conditions that the new cabinet was not able to define its objectives.

Now this cabinet must respond to the mood of the electorate and set out its objectives. It has embarked on this by recognizing that public consumption—and not private—is the main culprit. But even if this problem gets solved in the foreseeable future, this is not enough. Effecting just cuts alone creates negative vibrations. The same thing applies to subsidies. Since, however, it is an unavoidable fact that the country can only be lifted out of its economic problems by a stronger production sector, the state—in similarity with other EC countries—should allow the export businesses to retain somewhat more of their own resources. The earnings would actually return home again multiplied. Increased employment would be increased in the expected businesses. And the home front would be kept free from additional shocks. We will await the speech from the throne regarding these things.

12223

## FRANCE

**Reasons Complicating Center-Right, Right Unity Analyzed**  
35190095 Paris LE QUOTIDIEN DE PARIS in French  
29 Jul 88 p 3

[Alain Duhamel "Alain Duhamel's Column": "Reconstituting the Right"]

[Text] Following the RPR-UDF meeting, the parliamentary rightist opposition conspicuously displayed its unity and cohesion. It thus intends on the eve of the political

truce to show that it represents an alternate force ready to have its turn at the time of the next elections, but also to show for the first time since the Socialists took power that it has armed itself with a collective operating mode, with rules of the game accepted by all its components.

In fact, things are evidently not as simple as that. Though the RPR and UDF voters are sociologically more alike than they have ever been, though their aspirations overlap to a great extent, though their values, their prejudices and their beliefs coincide more and more closely, three sizeable differences remain. The first stems from the particular situation of the centrists, the second from the prickly situation that defining links with the National Front constitutes, the third from the question, as throbbing as it is repressed, as to how the candidate for the presidential election is selected.

Henceforth, the people of the right will profess the religion of unity. Moderate voters are less and less tolerant of personal rivalries at the top. They are losing patience with the persistent guerrilla warfare by the party machines; they are not interested in the quarrels among militants, as if they know instinctively that it is as a result of regional and local traditions, family sensitivities, and the luck of the candidacies that one district tends toward the Gaullists, another toward the center, yet another toward the Liberals. The myth of unity, which had long been the left's privilege, is from now on bipartisan.

However, this very appreciable aspiration on the part of the voters collides headlong with the increasing dispersal of the rightist parties. The more the fundamental right dreams of merging, the more the party machines seem to suffer from a tendency toward disintegration. This phenomenon was symbolized at the outset by the extreme right's resurgence. The growing autonomy of the CDES [Social Democratic Center] is exemplified at the present time by the creation of the National Assembly of the UDC [Centrist Union] group. The tendency toward independence surfaces scarcely less noticeably in the Republican Party where, despite founding father Valéry Giscard d'Estaing's installation at the head of the UDF, Francois Leotard and his friends certainly intend to pursue their own way. Since Jacques Chirac's electoral feat, divisions are acknowledged in the RPR, the most disciplined of the rightist groups. In sum, the voters are as desirous of unity as the party staffs are attached to self-determination.

In any case, the National Front is there to divide the right. That is its nature and even its calling, because it built itself up against the UDF and especially against the RPR. Jean-Marie Le Pen has always reserved his sharpest attacks and his most virulent philippics for the moderates. For the parliamentary opposition, he is today a mathematical and psychological handicap comparable to that which the Communist Party was for the PS prior to 1981. In addition, he deeply divides those within the RPR and the UDF who are prepared for an arm's length

alliance with him and those who are completely opposed to this. As soon as the National Assembly reconvenes, when the shadow of the municipal elections will begin to loom, the issue of right-extreme right relations will split the two large moderate right groups, and the boundaries of that split will, moreover, go right through the middle of each group.

Only the presidential election has the necessary power to overcome this handicap. It is at the time the president of the republic is chosen from the moderate right can demonstrate the limits of the National Front's influence and hopes: The setback to Jean-Marie Le Pen's group in this past June's legislative elections is a first illustration of this.

Even so, the RPR and the UDF need to be able to field a single candidate for the presidential election. The mechanics of the second ballot necessarily lead to this. Francois Mitterrand was able to weaken the PCF little by little, to the point of hispanizing it, because in 1965, 1974, 1981 and 1988 he became in turn the left's sole candidate (the PCF, having disappeared from the presidential election, soon lost ground in the other electoral contests), then the left's absolute suzerain (the PS, unable to hold its own against him, was weakened once again). For a similar phenomenon to take place on the right, the moderate camp must therefore also establish its supremacy behind a single candidate.

This suggests the need for a new procedure. Because there is no lack of personal ambitions and as Elysian vocations thrive in every season, any self-discipline whatever can be ruled out. Can it be imagined that the RPR would abandon the idea of putting up a candidate because its chances of prevailing on the second ballot would, in the face of Francois Mitterrand, be too slim? Can it be imagined that the centrists or the liberals would acknowledge the supremacy of the Neo-Gaullists and politely step aside? A selection mechanism based on a system of "primaries," of which there are a good half-dozen possible variations, is therefore essential to give a moderate right candidacy a chance. Moreover, a growing number of national leaders intellectually agree with this in private.

Politically, no group can carry any weight without having someone of presidential caliber, and each group will naturally expect that the others will be virtuous enough to withdraw their champions before the tournament. Hence the need for new rules of the game.

13249/9274

## GREECE

### **Intra-PASOK Tendencies Identified in Light of Papandreou's Illness**

35210150 Athens TO VIMA in Greek 28 Aug 88 p 3

[Article by G. Papakhrastos: "The Scenarios and the Tendencies. Who Are the 'Akhaiaans' and What Is the Role of G. Papandreou? Machinations Start Inside PASOK as Everybody Tensely Awaits the News From London"; historical background: Alexander the Great died without designating a successor but bequeathed his ring to his vizier, Perdikkas; years of civil war followed]

[Text] "Andreas is governing the country," so, consequently, "there is no power vacuum," the Government has been announcing since last Thursday evening, while Prime Minister Andreas Papandreou was arriving in London on the regular flight for "additional medical tests." To confirm this claim, the Government has also announced that a "red telephone," telex, and fax machine have already been installed in the room next to the suite at the St. Thomas where the Prime Minister is being treated. So the only thing it has failed to state is that Mrs Angela Kokkola has also been installed in that room...

In Athens, where it is known that the Prime Minister will be away from the job for more than 5 weeks in the best case, the first timid machinations already suggest that the discussion of the party's future also includes a discussion of the problem of the future successor to Papandreou, quite apart from the results of the present problems with his health.

And inasmuch as the uncertainty of the current situation necessarily raises the question of the succession, it will be worthwhile to list the "tendencies" that will seek the succession in force. The phenomena that have been observed within PASOK in the past few days constitute a persuasive argument that if for any reason Papandreou leaves the political arena, the ensuing events will confirm the Marxist theory that "history repeats itself."

Very briefly, there are two "tendencies": the "party men" and the "old party men." These are two "camps" which have existed within PASOK since its foundation in September 1974, and which can be identified even in the PAK [Panhellenic Liberation Movement] era. At that time the generation of young cadres who had followed Papandreou in creating the "leftist" wing of the Center Union stayed in Greece and was imprisoned and exiled, while Papandreou was abroad, surrounded by people who either had risen in the struggle against the dictatorship or had come of age in the lecture halls of the universities of Western Europe. When the dictatorship collapsed and the present Prime Minister returned to Greece, the two wings had already solidified: there were PAK (Exterior) and PAK (Interior), and each sought to obtain more positions than the other in the organs of the newly-founded PASOK by citing its own accomplishments in the struggle against the dictatorship.

The small number of seats PASOK won in the 1974 elections, when the "old party men" had an absolute majority, increased the enmity. Since then, there has been tension and there has been rapprochement, but the contest has continued through the present, and it is quite natural that the problem should arise once again because of Papandreou's health problems. Despite the fact that the correlation of forces has changed completely since the period before 1981, reducing the strength of the once all-powerful "party men," there has been no reduction in the passion of the contest between these groups, opposed by nature and by position.

The problem today, however, is that neither of the two "camps" can boast of being united.

In the "camp" of the "old party men" there are at least four "tendencies"; today these could be described as follows:

- The "tendency" of Menios Koutsogiorgas, also known as the "Akhaians." To it belong A. Livanis and a large part of the so-called Kastri "entourage," among whom the most important is Giorgos Papandreou.
- The "tendency" of the president of Parliament, Giannis Alevras, which can point to the great authority Alevras enjoys among the public and political world.
- The "tendency" of the "quiet ones," which consists of a number of leading cadres, such as Ap. Lazaris, K. Simitis, and E. Veryvakis, and is known for its moderation.
- The "tendency" of Deputy Prime Minister I. Kharalambopoulos. This may not have solidified yet, since the Deputy Prime Minister's "influence" on the Parliamentary faction and Government is extremely slight, but it argues that he takes formal precedence over all the others, based on Law 1558/85 "On the Council of Ministers and Organs of the Government"...

On the other side, the "camp" of the "party men" could find its expression in the Executive Bureau, but this has long since lost its prestige, since its ability to intervene in events has been reduced to a minimum and in reality it constitutes a purely procedural organ that deals only with the movement...

Probably, therefore, if and when the struggle begins, this "camp" will inevitably be represented by the movement's "historic leadership," as that is defined by the names G. Gennimatas, K. Laliotis, and Akis Tsokhatzopoulos. Of these three, only the first would be capable of shouldering the burden of one more election campaign, despite the fact that he is not popular with Kastri, the Prime Minister's entourage, and a large part of PASOK. Of the others, Laliotis would prefer to be in charge of the party, while Tsokhatzopoulos, constantly at Papandreou's side, could never express ambitions like those of Gennimatas.

While noting that this listing is an arbitrary one, we must remember that Papandreou remains the arbiter of events. Although he bears a large share of the responsibility for the failure to prepare the succession all these years, it appears that, like another Alexander, he will give the "ring" of the succession to a new Perdikkas.

Already yesterday reports began to leak out that on Thursday, which is also when the decision is to be made as to whether the Prime Minister will undergo surgery, his decisions on PASOK and the Government will be made public. These same reports—which, it should be noted, come from friends of the “interested parties”—assert that the “ring” will be given to a three-member governing board made up of representatives of the “old party men,” his “entourage,” and the “party men.” Although the sources would not name names, it is certain that if these reports of a three-member governing board are correct, it is almost certain the “entourage” will be represented by Giorgos Papandreou and the “party men” by Kostas Laliotis.

It is, on the other hand, difficult to determine who would represent the “old party men”: will it be Alevras? will it be Koutsogiorgas? Nobody knows. The one thing that is certain is that the former no longer has the same excellent relations with Kastrì—it is indicative that he learned of the Prime Minister’s sudden departure for London from a newspaper editor while Papandreou was driving to the airport, and he did not hide his displeasure. Koutsogiorgas, on the other hand, can boast that he attempted on his own initiative to keep the Government working smoothly to calm public opinion. At the same time—and the Prime Minister is aware of this—at last Thursday’s meeting right after Papandreou’s departure, it was he who asked that all the expressions of “interest” already beginning to appear cease...

Still, it is far too early today to say—not least because the final tests start tomorrow and will not be completed until Thursday (at which time the decision will be made as to whether the Prime Minister will undergo surgery)—whether there is any need yet to think about a successor to Papandreou, despite the fact that certain persons have already sought to be the successor, though just for “temporary” reasons. By the way, one very revealing incident was the soap opera with the “reminder” from “circles at the Ministry of National Defense” that “Mr Kharalambopoulos takes precedence, in accordance with Article 12, Paragraph 2 of Law 1558/85.” It took some hours and repeated discussions before those same “circles” were compelled to retract what they had said...

The statement by the government spokesman that “there is no question of replacing the Prime Minister” was not, as was claimed, made merely for the purpose of calming the public. Its primary purpose was as a response to any persons “pursuing” the succession. At the same time—according to authoritative reports—the statement also

constitutes a warning that the succession will be determined not by the letter of the law but by proceedings which will occur when it seems proper.

The law may provide for the senior Deputy Prime Minister—i.e. Kharalambopoulos—to replace the Prime Minister, but all reports available to TO VIMA indicate that if the Prime Minister resigns for reasons of health, the Government will ask the President of the Republic to be guided by Article 38, Paragraph 2 of the Constitution, which states that he names as Prime Minister the person proposed by the parliamentary faction of the governing party.

Matters would be simple if there were not also the PASOK Charter, which states very clearly that the President of the movement represents PASOK on all occasions, and consequently in Parliament as well. However, the Charter nowhere states what happens if the President does not carry out his duties for any reason. It only states that he is elected by the Congress. Thus, in the hypothetical case that a new President needs to be elected, the PASOK Central Committee will have to meet in order to call an extraordinary Congress for the sole purpose of electing a President. However, because the process of convening a Congress is a time-consuming one, it is most likely that in such a case the 1984 Congress would be re-convened. However, this would be a problematical undertaking, inasmuch as it is well known that between 1984 and today the composition of that Congress has altered with the expulsions and mass resignations...

However, all of this, which comes in response to possible scenarios, has no basis in reality, because the PASOK Charter was drafted with the dominant personality of Andreas Papandreou in mind. Not only did he unite the “tendencies” but his presence made it impossible for there to be another personality capable of seeking the presidency of PASOK, and by extension of seeking to speak for PASOK...

Thus, if Papandreou withdraws from the political scene, that will totally upset the correlation of forces and invalidate all constitutional procedures, both for PASOK and for the Government. Naturally this assessment is also shared by those “seeking” the “anointment,” which explains these initial machinations. And although this “battle” will not resemble that of Alexander’s successors, it is nonetheless certain that the “ring” given to the new Perdikkas will not solve the problems of the succession; precisely because history repeats itself with clocklike precision...

## FEDERAL REPUBLIC OF GERMANY

### Air Force Responds to New Requirements of Air-Land Battle

36200220 Frankfurt/Main SOLDAT UND TECHNIK  
in German Jun 88 pp 303-308

[Article by Col Christian Hellwig (GS) and Lt Col Gerd Kaldrack (GS): "Cooperation and Interaction of Ground and Air Forces in the Future; Fundamental Problems of Future Air-Land Warfare"]

[Text] For the German Army the year 1987 signified a deep turning point and at the same time a penetrating change. Changes in the military-strategic and technological field, the growing threat, shortage of manpower and material resources as well as social developments resulted in the concept of fundamentally further developing the operational-tactical principles and the structure of the Army. The results are now available with the nearly simultaneous publication of the new "Concept of the Army," of the "Operational Guideline" and of the fundamentally revised Army Service Regulation 100/100 "Troop Command." The essential features for Army Structure 2000 have been established and were approved.

Significant changes in the conceptual and operational ideas and conditions for the future Army and the land battle of the future follow from these basic documents. The operational principle and thus operational thinking and action move increasingly into the center of the future land battle. Army Structure 4, still in effect, is gradually being transformed into a new structure by the mid-nineties, which takes these considerations into account. Thus the Army has created the conditions, in view of the transition to the new millennium, to continue to provide a credible contribution to deterrence and to the conventional defense capability.

The new concept of the Army and the Operational Guideline require a definite improvement of the mutuality of the air-land battle; in the defense of Central Europe there must not be any air and land warfare operationally independent of each other. The necessity to orient limited available funds toward the operational goal of the battle requires integrated operational air-land warfare with uniform goals and coordinated command.

This means that conceptual ideas and operational principles among the military services must be better harmonized than heretofore and that the air and land warfare resources that increasingly are getting tighter, more expensive, and more complex must be coordinated and optimized with one another in terms of mission and employment. This is more than a technical interface problem or question of procedure. Rather the combined command and fighting of ground and air forces must be rethought in the alliance and adapted to the discernible developments.

Such thinking is nothing fundamentally new. Combined arms combat as well as combined air operations have put this basic idea into effect. But in view of the growing technological possibilities it is now important to carry on the air-land battle more intensively than heretofore as a combined operation. The increasing capabilities for long-range reconnaissance and weapons effect, for wide-ranging operational movements, especially of airmobile forces, for combat in the entire electromagnetic spectrum make close cooperation and coordinated action of the military services among themselves an indispensable prerequisite for a successful overall defense. Even the 1962 Army Service Regulation 100/1 had noted: "No service component is able to fight successfully solely by itself. The requirements which result from the common mission and from the necessity of coordination have always priority over the interests of the individual parts." Isolated air-land battle independent of the operations of the other service component in the future can and must be permitted even less than yesterday and today.

### Historical Findings and Developments on the Western and Eastern Sides

During World War I air forces developed as a new branch of service. They were an integral part of land warfare. During World War II the Air Force formations, which in the meantime had become independent, were dependent on cooperation. Their principal task was indirect and direct support of the Army. Organization, armament and equipment were designed accordingly.

The successes in the initial blitzkriegs were based to a substantial extent on close tactical coordination of Army and Air Force. Target-oriented airmobile fire in the depth and in the area of close air support were closely coordinated with the movements and the striking power of the Army. But success did not materialize wherever a decision was supposed to be achieved by isolated air warfare operations (e.g., Dunkerque, the Battle of Britain). As a result in the Himmerode Memorandum of 1951, which for the first time dealt with the armed forces in postwar Germany, it was concluded to deploy the future "army aviation units" in the framework of the operational command of the army groups.

In the United States, missions and tasks of the ground and air forces are spelled out in the "National Security Act" of 1947 and the "Key West Accords" of 1948. Because of these statutory provisions the individual military services had a largely independent development. But with the "air-land battle" doctrine the demand for a more strongly joint conduct of operations was then clearly raised later on. In an agreement, which was referred to as historical progress, the U.S. Army and the U.S. Air Force in May 1984 agreed to improve budget priorities, to eliminate unnecessary overlaps and to intensify cooperation in combat. This underlies the

finding that modern wars can be carried on only jointly in close coordination of ground and air forces. This is also emphasized in the "Air-Land-Battle Future" doctrine.

In the Warsaw Pact armed forces the operations of the ground forces are in the center of all planning and thinking. Other service components have to support them. The commanders-in-chief and commanders of the ground forces on all levels employ with full authority all forces available to them regardless of the service component to which they belong. Therefore an attack by the Warsaw Pact ground forces is always combined arms combat in which the use of the third dimension (e.g., air support, airborne operations, and air defense) is fully integrated. Consequently the flying forces are also incorporated in all command levels (front, army, division). Therefore an organizational and operational-tactical link among the military services exists in the Warsaw Pact. Concentration of strong long-range reconnaissance and weapons systems which overlap service components under unified command (e.g., reconnaissance-strike complex) or the formation of freely disposable so-called operational maneuver groups (OMG) with forces of both service components therefore cause neither operational nor organizational difficulties.

Thus East and West agree on the requirement for joint air-land warfare but do not draw the same conclusions from that for their command and control organization. While the NATO air forces institutionally and operationally are largely independent, the Air Force commands in the Warsaw Pact from top to bottom are integrated into a comprehensive combined arms command structure. Within the NATO command structure the tactical air fleets are only assigned; the corps level so important for land warfare, lacks an adequate partner on the Air Force side.

#### **Mission and Concept of the Bundeswehr—Basis for the Organization of the Military Services**

The Bundeswehr Concept forms the basis for the organization of the German Armed Forces and controls the assignment of missions and the establishment of priorities of their military services. But the Bundeswehr Concept includes hardly any direct statements on cooperation and coordination of the ground and air forces. Such statements are supposed to be the object of subsequent planning documents, the so-called TBKA (subconcept for missions transcending one area).

The starting point is the mission of the armed forces to maintain or restore in wartime the security and territorial integrity of the FRG jointly with the allied armed forces and in cooperation with other organs of the state.

Against this background the Bundeswehr Concept has established mission and tasks for the Army, in other words for the field and territorial Army and for the Air Force. These tasks were made specific in 1987 by the "Waldbroel Decisions."

According to the above, the Army's principal task is to maintain largely independently the forward defense areas assigned prior to the start of the attack without having to resort to important parts of the air forces for this purpose. The principal task of the Air Force is the fight against enemy air forces with air defense and air attack forces. As part of the overall operational concept it is of course of decisive importance that the aggressor forces are countered far forward to maintain or restore the territorial integrity. In this respect the ground forces depend on the air forces for support; in this connection a key factor is played by a favorable air situation over the battlefield. The assignment of tasks to Army and Air Force takes this circumstance fully into account.

For the long term the aim is to achieve the capability of the Army for independent warfare up to a depth of about 100 km beyond the FLOT (forward line of troops). Then the Air Force is to provide support in this area with available air attack forces only if the situation requires it; i.e., CAS/BAI (close air support/battlefield air interdiction) become secondary duties without special forces being specialized for this purpose. Thus it becomes evident that this is a planning determination, but not an operational line of command. Its purpose is the control and coordination of the development and procurement of defense material and making available corresponding forces for the two service components. Operationally-tactically neither the employment of air forces on this side of the 100 km line is excluded nor is the area of responsibility of the corps reduced.

Moreover in Waldbroel it was established to assure coordination of the integrated air defense with the Army air defense (HFlaAFueSys) and over the long term to create the conditions for operational coordination of all combined air defense systems of the military services with the integrated air defense.

In the field of intelligence collection and reconnaissance the Air Force will take care of specific parts of primary reconnaissance as a lead function for all military services. This system must guarantee an operational control and data distribution meeting the requirements of all users.

Secondary reconnaissance takes place by the service component itself for target lethality reconnaissance and target acquisition for one's own conduct of operations, especially for weapons employment. In this connection an adequate exchange of data with other users is to be assured.

This brief presentation of planning decisions made for assignment of tasks to the military services deals only with some very especially important fields. It is important here not only to remove still existing "grey areas" but also, parallel to that, to produce the necessary coordination in the alliance.

### The Future Operational Command and Control of the Ground Forces

For the future cooperation and coordination of the ground and air forces, the ideas on the land battle of the future are important to make further joint development of the air-land battle possible.

To be able to maintain the defense areas, it remains a decisive criterion for the ground forces employed in the forward defense in the future, too, to win the first battle. Wherever the enemy seeks to achieve a breakthrough by massed commitment of forces, he must moreover be opposed quickly by an adequate defensive force. It must be possible quickly to form tactical "countercenters of resistance" and, with foresight, operational "counterweights."

The Warsaw Pact will have the initiative in the future, too. Thus it will be determined when, where, and with what forces and in which direction of thrust he attacks. For the NATO ground forces this means, first of all, to engage in operations far forward and to delay the enemy attack while largely maintaining our own combat effectiveness to then destroy the attacking forces in the defense areas, making full use of all advantages of defense.

In this connection merely reacting by "countermobility" and "counter centers of resistance" is not enough. If the aggressor is permitted to employ his superior potential according to plan, it will hardly be possible to deny him the initial success. Thus in the future, too, it will be quite essential to prevent the enemy from the start from implementing his operational and tactical planning and thus being able to bring his superiority to bear. To this end it is necessary to reconnoiter his offensive forces in good time, to take them under fire and to prevent rapid bringing up of forces by barrages fired into the depth.

But this by itself is not enough. Rather it is vital to deprive the enemy of the initiative immediately and with full determination and to create the conditions by operational fire and operational reserves to win the battle. Thus on the battlefield of the future the mobility of the defense will play a decisive role. It is the prerequisite for preventing the numerically clearly inferior defender from being worn down in a war of attrition so that he can maintain freedom of action. The future land battle in Central Europe will thus take its course very dynamically at least in the focal points. Especially in the focal points the combat will be conducted largely as an uninterrupted operation by day and night, with high intensity and utilizing the depth of the area. In this highly mobile and dynamic combat there will also be sectors in which it will be important for the defender to maintain the areas assigned to him with high steadfastness, fully utilizing the fire effect and especially the barrier effect as well as the advantage of the familiar terrain.

In this operational concept the battle in the depth assumes growing importance. This battle is conducted with the operational objectives:

- to guarantee a ratio of forces sufficient to maintain the defense areas,
- to neutralize key targets in the depth,
- to maintain operational freedom of action,
- to threaten the enemy also in the depth of his area.

Here it is especially important to weaken or delay the forces most endangering one's own success, so that these forces cannot make themselves felt in the decisive phase. As a result the conditions are established for defeating the attacking enemy forces one after the other.

The battle in the depth cannot and must not be an action in its own right independent of the direct battle for and in the defense areas; rather it is always determined by the higher operational or tactical overall planning and will have to be coordinated and synchronized in its framework.

The quality of the reconnaissance in connection with the range and precision of the weapons effect advancing into a new dimension leads to a considerable enlargement of the spatial extent of the area in which the ground forces can conduct the combat in the future.

The battle in the depth is conducted by the Army beyond the field of fire of the direct fire support of the forces defending forward primarily with long-range "operational" fire whose effect is reinforced or supplemented by electronic countermeasures.

Effort and expenses for reconnaissance, action and effective engagement of targets increase overproportionately with growing distance from the FLOT. Thus the combat in the depth can be conducted only at points of concentration. In addition to the direct effects—and this is being mentioned here as an aside—there are of course the indirect effects on the enemy which result from his awareness that he is exposed to a constant threat even in greater depth in assembly and movement.

Aside from the expansion of the battlefield on the ground, there is the increased inclusion of the third dimension in the combat of the ground forces. To make use of the special potentials of nonsurface-bound forces and resources it will be possible to take care of many different tasks in the fields of reconnaissance, command and control and combat, but also in the fields of combat and operational support with manned and unmanned airborne platforms. Tactically air mobility will become a firm component of combined arms combat; on an operational level air mobility opens up new possibilities to the troop commander for quick and flexible action with a broad spectrum of options. This includes quick, large-scale actions even across corps borders. Airmobile fire will thus become part of the combined system of reconnaissance, command and control and weapons effect

which is near real time. The classical two-dimensional battlefield in the future thus becomes a three-dimensional battlefield a result of these growing capabilities alone. In addition, there is the use of this "three-dimensional battlefield" by an increasing number of rockets, drones, and RPVs. The land battle concentrated traditionally on the reciprocal support of fire and movement on the earth surface in the future will be carried on in 3 dimensions in this manner but will also have to be coordinated. This task cannot be mastered with the present resources and processes.

#### Developments in the Area of Air-Land Battle

It is apparent that the borders between air and land warfare are becoming blurred. Even now many systems of the ground forces use the airspace close to the battlefield. In the future this share will even increase. New developments can be observed even in the operations of the two service components on the ground.

Over the long run, air attack forces will be employed more and more rarely for direct support of the Army. Over the long term the Army with its airmobile weapons platforms must assume the task of "close air support" and with long-range systems of the artillery forces operating near real time, the task of "battlefield interdiction." This means that appropriate weapons systems must be procured and appropriate operational basic conditions must be created.

However, another development is discernible with the air defense forces. As part of the new integrated NATO air defense structure, the so-called "SAM cluster," air defense forces are moving close to ground forces troops in the corps area. Thus while a certain "process of disengagement" can be noted in the case of the air movements, which also seems to make sense because of the operational and technological developments, air defense in and over the corps area is being intensified. This contributes to a more favorable air situation but also leads to problems for command and control and employment. These problems range from coordination of the weapons effect of the various systems of Army and Air Force to the coordination of the use of the space and the movement on the ground.

If the development of the use of the airspace close to the battlefield by the various flying and shooting systems of both service components is considered, the central importance which is due air space regulation is immediately recognizable. High air defense and antiaircraft capability now necessarily signify considerable restrictions on the employment of airmobile resources. Of course, the solutions are being made more difficult by the fact that one's own air space close to the battlefield at the same time is also increasingly used by the enemy systems. In no other area of the battlefield are "friend" and "foe" so quickly and intensively closely engaged and is the electromagnetic spectrum used in so many ways or interfered with by countermeasures so that with the

present status of technical identification systems an unequivocal identification is extremely difficult. The increasing share of the forces employed in the quasi-automatic interconnected system of reconnaissance, command and control and fire accentuates the problem even further; it requires potentials for reaction in very short periods.

The effectiveness of air-land battle operations thus depends to a decisive degree on an airspace organization that meets the threat, is effective and practicable. Here lies the decisive interface of future air-land operations; otherwise surface-bound and air-based systems threaten to considerably limit or cancel each other in their effectiveness. A satisfactory solution of this problem is of central importance for the ground forces because in the future they will increasingly count to a much greater degree on systems which utilize the air space close to the battlefield. Therefore, an airspace regulation 2000 over the corps area must more take into account the needs resulting from the further development of the conduct of operations and of the weapons systems of the ground forces—of course the new conditions of the air war must also be taken into account.

Electronic warfare is another area that is due increasing importance in the concerted action of both military services. The vision of an ECR Tornado flying over the battlefield that puts not only the enemy air defense out of action but also the various systems working in the electromagnetic spectrum of one's own ground forces is just as unacceptable for the Army soldiers as is the idea for the pilot that his flight control or navigation systems are being adversely affected in their operability by electronic countermeasures of the ground forces. But this is only one aspect. It is just as important that measures of electronic warfare, e.g., synchronized as part of the battle against the enemy command and control, must be carried out jointly with forces and resources of the ground and air forces. Here we are still at the beginning.

We have already collected experience in the field of reconnaissance. Neither of the two sides will express satisfaction with this topic. Here we must be able in the future to adapt to one another not only the gaining of knowledge concerning the air and ground situation but also to make sure that the results will be available in time at the right places. From the point of view of the Army, LAPAS (air-based stand-off primary reconnaissance system) has a key role here since the latter, which is to be operated by the Air Force, is to cover the by far preponderant part of the need of the Army for "situation reconnaissance" beyond the area of responsibility of the brigades. Here it is indicated even now that the technical acquisition of the reconnaissance results will definitely cause fewer difficulties than the operational-tactical control of the reconnaissance activity beyond the service component borders and the timely availability of the data with the various users. But it is not necessary to go up in the air so high to find fields of activity for better

coordination and better mutual exchange: The different air space and low altitude aircraft surveillance systems offer themselves as such fields of activity.

#### Combined Fighting and Command—A Summary

Aside from the operational necessity to orient the operations on a goal, the requirement for increased conventional defense capability with resources that become increasingly tighter necessitates greater coordination between ground and air forces. Neither an independent land war nor an independent air war is a practicable solution; only "more" mutuality will do justice to the future challenges. Concretely that can only mean: More intensive cooperation and better coordination of the ground and air forces with simultaneous distribution of tasks to both sides, which in its plan is oriented on the principle of cost effectiveness and guarantees the operationally-tactically necessary flexibility.

As viewed by the Army, in this connection it is especially important to take into account the horizontal and vertical expansion of the battlefield of the ground forces and actually to qualify the troop commanders so that they can carry out their mission independently in their areas of responsibility. The absolutely necessary combination of land and air warfare must be operationally guaranteed. In terms of planning in this context it connotes fulfillment of tasks which are more complementary, mutually supplementing, rather than parallel, largely overlapping. The Armed Forces as a whole simply no longer can afford more.

Command and control of the joint air-land battle receives different solutions in the individual countries. Thus in the United States as part of the "air-land battle future" concept, the attempt is being made to bring together the ground and air forces into a tactical and operational combination despite their independence in combat developed on the basis of their statutory position.

The Warsaw Pact has structurally solved this problem largely by organizational incorporation and operational integration of the air forces in the land battle. With the Waldbroel decisions of the chief of staff of the Bundeswehr, the German Armed Forces have taken a road of their own. The air-land battle is broken up into parts while the Army corps must independently carry on the battle over the long term in their entire area of responsibility. Here the troop commanders need the appropriate forces, resources and areas of responsibility. The operational link between the ground and air forces is thus guided into other channels; it receives a new quality.

Many improvements are necessary to be able to conduct the air-land war really jointly, coordinated and effectively according to the ideas presented. As seen by the Army, two of them are of special importance for the implementation: On the one hand, it must be possible to

solve satisfactorily the problem of "air space management of the future" operationally-tactically as well as technically; on the other hand, it is important to harmonize with each other the command and control organization and systems of both sides, so that the basic conditions for a better "togetherness" are present.

Undoubtedly that is more easily said than done. It requires rethinking and in some areas breaking with past ideas. To achieve a national consensus here is probably difficult enough. To prevail then with a German position in the alliance requires more patience and determination. For this process the quotation from Max Weber on "policy" can be used as a guide. In modified form the quotation for a joint air-land battle would read about as follows: "The joint air-land battle signifies a strong slow piercing of hard boards with both passion and perceptiveness. It is definitely correct and all historical experience confirms it that the possible was not achieved unless people would have reached again and again in the world for the impossible."

12356

#### Overcapacity Threatens Innovative Armored Vehicle Industry

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[Article by Wolfgang Flume]

[Text] Almost every year WT has published a detailed report about the continued structural and technical development of the FRG's armored force. Anyone who now goes through the old articles will note that many of the statements made 2 or even 5 years ago are still valid today, but that nothing is so intensely subject to change as planning.

This is true not only of the armored force; basically, it applies to the entire Bundeswehr. Mentioning one keyword is enough to make the point: finances! In contrast to the sister services—Air Force and Navy with their modest, but in turn spectacular and costly weapon systems—the Army has a very substantial "optical" disadvantage in respect to planning: The large variety of different units and forces, weapon systems, devices and equipment items, and the like, also cause by far more changes in planning, very quickly giving the impression that the word "stability" is totally unknown in Army planning. Thus, it is small wonder that the unit quantities of planned armored weapon systems have changed radically in the past few years, generally downward. On the one hand, the limited financial resources for defense are clearly a reason for this, but on the other hand, so is a somewhat different, even expanded spectrum of tasks for German land forces. Forward defense with as many operational units as possible continues to be valid, but in addition there are tasks which could be technically realized because of cost-favorable conditions, such as

operating deep into enemy territory to effect early attrition of the enemy's following echelon (reserves which are almost unknown in NATO) and very closely tied in that the necessity for improved intelligence and command. The word FOFA (Follow-on Forces Attack) may describe this complex.

Furthermore, the Army must adjust to an altered threat which must lead to changes in organization and arms, especially since we want to use the latest technologies here, too. All this and other issues as well, primarily the personnel shortage, gradually resulted in forcing the Army to set its priorities somewhat differently—best seen from the new Army structure 2000, the basic principles of which were introduced publicly at the beginning of the year (see WT 4/88, p 49).

Armored units still represent the shield of forward defense, but in addition the artillery with its long-range fire and mainly the Army's airborne component have gained in importance, a fact which can also be expressed in terms of the financial resources which must be spent in the future for these units—and which are then no longer available for ongoing modernization of armored combat forces. Thus—to cite just a few examples—the five new airmobile brigades which are to be put together with army aviators and airborne field forces must receive new equipment: the PAH-1 with upgraded combat effectiveness, the German-French PAH-2 is being newly developed and acquired, moreover armed escort helicopters and combat support helicopters are essential, and the clattering UH-1D must also be replaced in the future.

Five so-called infantry brigades must be newly created: They require a protected transport vehicle. Of course, the old M-113 is to be used for the present, but there is talk of the 6 x 6 Fuchs or—and currently no doubt more than an industry wish—the Puma.

The hardening (improved protection) of the WP units which was accomplished in the past few years at substantial cost is forcing NATO to strengthen its artillery with new ammunition and new weapons. The Bundeswehr in turn is acquiring 200 MLRS medium artillery rocket launcher systems and then plans to acquire about 500 new self-propelled howitzers 2000 starting approximately in 1996/97—the overall requirements for this weapon system come to over 1,000 systems since the existing M-109's must also be replaced later.

This "list" could be expanded at will—it shows that the armored combat forces must share the financial resources with other branches of service to a greater degree than previously. But, in this, increasing the finances will not keep pace with the Army's financial requirements. It can truly be argued whether it is appropriate and definitely of value for the Army if "deficits" of DM10, 30 or even 40 billion are repeatedly mentioned to the public—but one thing cannot be disputed: the Army has financial problems.

In particular, the Air Force, which easily pushes through a DM20 billion program like the Jaeger 90, "primarily from pressure in the industry and through the good offices of the FJS," is the source of much envy. Without meaning to detract from the importance of air forces with modern equipment the Army refers to the fact that the importance of the FRG in alliance policy and a potential conflict in central Europe are very materially determined by the operational readiness level of land forces. And it would be considerably more difficult to bring reinforcements to the front for them from the United States or even just Great Britain than fighter and fighter bomber air wings.

With further consideration of the fact that the investment share in Army expenditures sank to a low point of only 20 percent (30 percent would have been acceptable), it is possible to judge the kinds of problem facing Army planners. But at the same time their problems are also the concerns of the armored vehicle industry.

One thing is clear: the good times in the first half of the 1980's with sales of over DM2 billion (including exports, but not repairs) are history and may very well not return again in the foreseeable future. This year and in the next few years, according to calculations made by the armored vehicle industry, sales will be about DM500 million per year, only to decline to about DM100 million in 1991. Then there will once again be an increase—but definitely not enough to fully utilize manufacturing capacity. The industry is aware of this; this was also discussed with Prof Dr Manfred Timmermann—but: no one side has solutions, the "ball" is being tossed back and forth. The official side is also familiar with the concerns—it would have to change its spots a bit because in order to avoid letting the years up through 1993 become too critical for the industry, quick solutions are being demanded together with extensive sacrificing of the time-consuming phase decisions of the procedures affecting the origination and procurement of defense material (EBMat), likewise—and that is a kind of quasi-precondition—including more financial resources for the armored forces in the respective budgets. Because: those employees in the technical defense sectors of companies who are now switching to the civilian sector are completely lost to defense technology and with them their valued know-how.

What kinds of solutions would be possible? Suggestions include upgrading combat effectiveness of the Marder, Leopard 1 and Leopard 2, which can be accomplished quickly, primarily by improving protection, and even greater support from the official side in the German armored vehicle industry's acquisition efforts in NATO and third countries; in this, interest focuses on the armored vehicle requirements in Canada and Sweden—at most, some dare to dream, but none to believe in exporting the Leopard 2, for example, to Saudi Arabia or other countries in the region.

More details later about both suggestions, especially since improving protection and exports can in part be viewed as closely interrelated.

### Too Much Industrial Capacity

In any case a reduction in industrial capacities can be expected, particularly in manufacturing, but also likely in development and repair—unless new opportunities develop in foreign trade. But what is the appropriate capacity? And which company should be the first to reduce? Should all companies reduce capacities at the same time or should one do more, the other less? At present there are, therefore, more questions than answers at hand. The competition between the armored vehicle builders has become more intense, also actively heated up by the increasing number of solicitations for bids by the Hardthoehe.

In addition, new, even if very well-known competitors have emerged which have contributed to a certain shift in emphases. Thus, Wegmann which formerly was apostrophized more as a "turret company" is now also much more actively involved in the overall system business, while Daimler-Benz, which began with a technically very interesting design in the armored vehicle 90 design phase, has been rejected.

The industry has been surprised by the fact that one company has great faith in the future of the armor business: Diehl. How else can this be interpreted since the Nuernberg company wants 51-percent participation by the Ichendorf vehicle repair plant (FWI) and is assuming a leadership role in the industry? Of course, the FWI fits right into the Diehl conglomerate's existing repair capacity—but on the other hand the Bundeswehr's volume of repair work might well decline over the long term: for reasons of economy the yearly volume of travel declines (also because of increased use of simulators), modern vehicles are easier to repair and the number of armored vehicles in the Bundeswehr is shrinking. Or are people banking on the fact that the Army will be forced, because of the predictable manpower shortage, into increasingly greater use of lower levels of maintenance?

On a long-term basis the question of appropriate capacities in the German armored vehicle industry is posed against the background of the common arms market which is planned to be as parallel as possible to the European domestic market which in turn is scheduled to go into effect in 1993. Until the latter becomes operational, a great deal of water will, of course, flow down the Rhine, the Thames, the Seine or the Tiber, yet the German industry should be "forearmed." WT was unable to identify any uniform opinion in the industry about the common arms market, but the prevalent view is that it provides more opportunity than danger, assuming that similar basic conditions obtain for all companies in all countries and that every company will concentrate on what it does best. Of course, those companies which

currently exist behind a kind of "protective fence" or only because of political "advocates" should be afraid of the common arms market—in connection with the last point the North and South Germans like to mention the delegates from Kassel.

In the case of the armored vehicle industry a European arms market will likely also produce what has been well known for about 20 years in the aviation industry (which, moreover, is very much envied by the armored vehicle companies): international cooperation as well as joint ventures. Of course, there can be sharp disagreement as to whether international programs are cheaper, simpler and faster than national ones—viewed as a whole, of course, the advantages for everyone should offset the possible disadvantages for individuals. Efforts to date to start common battle tank developments were totally in vain and may support the thesis that they will continue to be impossible in the future. Of course, even armored vehicle developments are becoming increasingly more expensive (to be sure, they will never cost DM8 billion like the Jaeger 90), and thus financial pressure can once again definitely emerge to risk a common effort once again—assuming military demands (although these are not currently in evidence). However, the focus will remain on national developments as long as DM700-1,000 million are viewed as affordable, that is, can be financed, to develop an armored vehicle.

However, at least increased standardization and interoperability are absolutely essential. This has been discussed for as long as NATO has been in existence, and there is also definitely evidence of successes—the pressure felt by all as essential to reach agreement on standardization, at least in the various kinds of components prior to any development is, however, not present in sufficient measure. And occasionally it even seems as if this question causes some further drifting apart in NATO. This must be unconditionally avoided in the case of one certain component of a future main battle tank: the main gun.

### A New Main Gun for Tanks?

The majority of the NATO countries' main battle tanks is equipped with a 105-mm caliber main gun. Except for the French and Spaniards with the AMX-30 the same British weapon is used everywhere, that is, the ammunition is interoperable. The second caliber is 120 mm: The British have a weapon with a rifled tube, the Germans, Dutch and Americans the smooth tube gun. Although the 120-mm caliber weapon does have the potential for upgrading performance in respect to ammunition (to some extent this applies to the weapon as well, for example, by lengthening the barrel), the penetration performance of the ammunition, however, is viewed on a long-term basis as inadequate against targets such as the future Soviet FST3 (Future Soviet Tank) main battle tank. The details about this Soviet tank are understandably not yet known, but using the familiar Soviet main battle tank types to extrapolate into the future, the FST3

would have to be a very heavily armored vehicle with a kind of externally mounted weapon (more than 125 mm caliber) and with a crew which is seated very low in the turret cage and is therefore also well protected. Even if a certain amount of skepticism must be brought into play in respect to the military's high projection of the threat—it is clear that the Soviets have made substantial progress in the tank sector in recent years and upon the appearance of a new model Soviet tank occasionally Western high projections have turned out to have been too low. If in the future this should no longer apply because of "glasnost" and "perestroika," that is, will the East slow down the increase in its conventional arms efforts? Many of our politicians like to believe this—the military, of course, must stick to the facts. And these force them to start thinking of new directions in the tank sector. Even in respect to the weapon.

How might it look?

On the assumption that it should be available at about the same time as the Soviets introduce their FST3 "super tank", conventional solutions are out of the question, this means electromagnetic or electrothermal weapons. Troops will in all certainty not be able to use these as main tank guns before 2005—in spite of the extreme U.S. efforts. Of course, one future solution is also the liquid drive gun. It also enjoys the potential of faster realization. Since, however, this liquid fuel gun essentially determines the design of a main battle tank, it would have to be perfectly clear in 1990-91 whether this gun type should be accepted for a new main battle tank which is to be introduced around 2000, or whether the traditional powder gun must be retained. However, whether by the given point in time sufficient bases for a decision for a new weapon principle will be available is very questionable in spite of certain development work at Diehl and Rheinmetall. However, if a decision in favor of a liquid gun should be possible, then such weapon development would always be linked with a risk—in the worst case one would be left with the introduction of a new main battle tank without a new weapon and would have to rely on the existing 120-mm gun.

Thus, by weighing a simple risk the end result will probably be the further development of the powder gun. Of course, two factors should be taken into consideration:

- The research and development work on a liquid fuel gun should also continue on an ongoing basis, in addition to main tank guns there are also other areas of application for this technology. Basically the substantial skepticism on the part of soldiers toward liquid fuel can only be reduced by test rigs. Objections which can often be heard run along these lines: "We want to keep shell-endangered hydraulics out of the tanks, yet at the same time we are introducing lines with dangerous chemical substances."

- In addition, the greatest possible NATO-wide interoperability is, of course, a basic condition. At the least this means standardization of the caliber, the powder chamber and with it certain basic ballistic data. It would be irresponsible if other calibers were added to the extremely varied existing calibers. In this NATO is currently very pressed to reach a quick decision, even before national or company interests have become dominant and a common denominator—read "caliber"—can be found only with difficulty.

Work is in progress in NATO on new weapons with calibers which vary between 135 and 150 mm. Only a quick agreement on caliber will introduce clarity—and that will still not totally eliminate costly duplication of effort. Thus, the demand should really focus on developing only a single weapon through collaborative work in armored vehicle-building countries—NATO's future standard armored vehicle weapon!

A main gun with a caliber larger than today's is being demanded because to fight an FST3 it is essential to have a much better impact on the target and also higher kinetic energy at the muzzle than can be achieved with 120-mm caliber and improved ammunition. Occasionally there is even talk of values which are twice as high. High kinetic energy at the muzzle—together with precise fire control—also means that firing at great distances can begin, thus to the extent possible even before the enemy can even start firing. But in order to achieve this energy a larger caliber is urgently needed and therefore an enlarged powder chamber, a heavier shell and higher kinetic energy at the muzzle. Bigger ammunition in turn also requires an automatic loading device or at least an initial boost—in the event divided ammunition is used.

In this connection a development in the Rheinmetall weapon Rh 503 (35- and 50-mm caliber), which was selected as the armament for the Marder 2, appears to be attractive; its caliber can be altered by a simple change of barrel. There is no change in the diameter of the powder chamber, but its length and volume are larger given the larger caliber because a part of the barrel is incorporated into the powder chamber. This makes it possible for the ammunition to be bigger and the space around the discarding sabot of the KE-shell can be used for additional propellant charge. This principle, applied to an armored vehicle gun, would mean that the smaller caliber (like today) would be 120 mm, the larger, on the other hand, could be at the maximum of the caliber of the propellant charge chamber—ca. 150 mm—in the event the weapon is mounted on the existing 120-mm smooth barrel. Furthermore: it would not be necessary to develop a totally new weapon, rather only a certain part—this not only saves money, but also time, primarily because many of the safety tests which are necessary to reach the level where troops can use it can be bypassed. In addition, it should be possible to retrofit main battle tanks like the Leopard 2 and M-1A1 Abrams with such a "rebored" weapon.

Of course, at this time it would be too premature to conclude that with this simple "change of barrel" in the Leopard 2 it would be possible to totally drop development of a new main battle tank for the years after 2000. A main battle tank is defined not only by "fire power" and "mobility," but also by the criterion of "protection"—and here, too, developers will be very greatly challenged in the future.

### Increasingly Important: Good Tank Protection

A main battle tank, as the primary means of advanced forward combat must provide its crew with a high degree of safety from the effects of enemy weapons. Survivability of a vehicle can be described in terms of its strength and the structure of the armor, efficiency of the main gun in order for fighting an enemy in a timely fashion before he can start firing, but it can also be described by the design criterion "mobility" because a high degree of mobility in the field makes fighting/attacking difficult for the enemy. Good protection is provided only if there is an optimal combination of all these factors. However, where the primary emphasis is placed varies from from one land force to another, in part for reasons which cannot be clearly explained, in part for historical reasons. While the German Army attaches considerable importance to mobility, the British, for example, have more faith in strong armor with the result that the British main battle tanks are heavier and thus less mobile.

Formerly the threat of the main battle tank was almost exclusively in front of the tank (primarily from the main gun of enemy tanks); today and to an increasing extent in the future it will come from all directions and angles. It used to be sufficient to protect the tank just on its nose with very good armor—the armor on the sides, roof or rear could be largely neglected. Better vehicle mobility, better drivability, and the like, will however, make land combat increasingly more interdependent—the enemy will no longer be just in front, he can be to the right and left and possibly suddenly even at the rear, for example, in built-up areas. He attacks, using main guns of increasingly larger caliber, with movable and even antitank missiles which can be fired through the tube, also of increasingly larger caliber, with a modern artillery which receives ammunition which is increasingly more effective and more accurate in firing: Small bombs which hit from above and also hit the virtually unprotected areas of a vehicle have replaced fragments of high-explosive shells detonating more or less nearby as the threat. It is conceivable that sensor-detonated search ammunition and later terminally guided shells will be introduced: once the main battle tank has been acquired by the search head—passively with infrared and mm-wave radar—the probability of its also being hit and destroyed is high because the impact likewise comes from above, from projectile-forming charges (penetrate roughly caliber-thick armor) or from tandem shaped charges (penetrate about six to eight caliber of strong homogeneous armor steel). All of this virtually forces development for the next millennium of a totally new main battle tank

with very great protection. And since protection always means weight, the volume to be protected should be as small as possible, because otherwise we would end up with vehicles which, because of their large mass, can no longer even be used in an area whose landscape has been oversettled or which is marked by artificial traffic structures as in central Europe.

Nonetheless, inactivity should not prevail in the protection sector waiting for the introduction of this armored vehicle which is described in somewhat more detail below. More protection is essential today for armored forces—it is also technically feasible.

Did not the Israelis and then to the surprise of everyone even the Soviets show how quickly vehicle protection from shaped charges can be substantially improved by adjusting the reactive armor (steel plates with explosives between them)? And is the United States not saying that the M-2/3 Bradley armored vehicle is to be improved and that then the M-1A1 main battle tanks are to be delivered with a new kind of armor in which depleted uranium will be integrated into the armor as a heavy material?

And what about us, the ones who supply the bulk of the battlefield vehicles in central Europe? Of course, a few years ago ballistic protection of the Leopard 1 was improved by mounted, rubberized steel sheets, and the same is also true of the Jaguar missile-equipped tank destroyer. But apart from that not much has happened in the way of visible measures—other than perhaps one exception: the Leopard 2 will receive new protection beginning with the sixth lot.

There may be a variety of reasons for this extensive "inactivity" in tank protection in Germany. It may be true that the Leopard 2's protection was exemplary when it was introduced in 1979. To be sure, almost 10 years have passed so that the improvement addressed represents an essential step. (Which the German Army nonetheless did in secret—without attractive publicity like what the U.S. Army accomplished with its report about uranium armor.)

Of course, adhering strictly—at least thus far—to the MLC 60 weight limit, which in the case of a vehicle with the dimensions of a Leopard 2 means about 56 tons, does not make our job easy either. Other countries impose fewer restrictions on themselves: The British Challenger weighs about 65 tons, the the U.S. M-1A1 Abrams currently is also around 62 tons—metric tons, please recall. However, both vehicles are also used in central Europe—should we perhaps also rethink the matter?

Furthermore we have always been very hesitant in regard to upgrading combat effectiveness: It is planned and implemented according to EBMat, taking place in rather large steps which are spaced quite far apart instead of as other land forces successfully do it, in substantially smaller steps, but in return rather closely spaced. It

should be done this way in Germany, too, at least as far as protection is concerned. The technologies for modern protection, which meets high requirements, are available in Germany even if they must in part still be tested, and the cost might even be kept within limits—as compared to other intentions to upgrade combat effectiveness. Fast action and translating into fact are necessary, for on the one hand the tank crews must be better protected, and on the other hand it would be possible to reduce somewhat the gap in full utilization in the industry by fast refitting work. Different activities have been initiated—for example with the Marder and the Leopard 1—realization should not be too long in coming.

Here and there we even feel outside pressure to do this. It is well known that the two other Leopard 2 user countries, Switzerland and the Netherlands, have a very positive attitude toward upgrading combat effectiveness, and from the United States the Leopard 2 competition is “knocking” potential customers such as Canada and Sweden by asserting that the Leopard protection no longer meets the threat while the protection of the M-1A1 is continually being increased, for example by using uranium armor. The precise effectiveness of an armor will no doubt remain a carefully guarded military secret even in the future and which main battle tank is now better protected will, therefore, not be made public either. There is, however, no disagreement that the threat demands more protection for all armored vehicles.

It may be noted in passing that improving the M-1A1's protection did in fact come about in part with German assistance, and that General Dynamics as the manufacturer of the M-1A1 is offering the new protection to Switzerland to retrofit the Leopard 2.

#### Current Mobility Is Adequate

Mobility is the third factor which determines the combat effectiveness of a tank. In the case of the Leopard 2 the high power-to-weight ratio and the design of the track and suspension established international standards which will not be so quickly surpassed. Thus, for future armored vehicles, this also means that the Leopard 2's mobility is adequate for them. For the planned armored vehicle 2000 this might well mean that it will once again have a diesel engine if the MLC 60 is observed, especially since MTU [Motor and Turbine Union] is developing with the series 880, which is being used for the first time in the self-propelled howitzer 2000, a very modern and, most importantly, an extremely compact diesel engine. This would then also permit achieving a certain degree of standardization in tank modernization because even the new armored vehicle is to have an engine of this series. From the outset, however, the deliberations should not totally exclude that LV100 gas turbine engine which is being developed at General Electric and MTU for the U.S. Army, in case this produces the anticipated performance level in testing and demonstrates genuine advantages over a modern diesel engine.

Even if the dominant view at the Hardthoehe is that when compared to other sectors of technology further intensive research and development activities in the drive sector will result in only modest progress, the drive sector should still not be completely neglected, even if the military is satisfied with the mobility of the Leopard 2. For example, an innovative area would be the electric drive for armored vehicles. In that case the transmission of the traditional drive is in practice replaced by an electric generator. The electric motors which it drives can then be located directly on the wheels and track drive, respectively. Thus, an electric drive might be especially advantageous for wheeled vehicles, in the case of tracked vehicles it would be conceivable to drive the tracks front and back which would surely make it possible for the track to be lighter. Another advantage of the electric drive is the greater freedom in locating the drive components in the vehicle, and in addition the volume is smaller. Moreover, the diesel engine can always run at the rated speed, thus more power is available and the vehicle can, for example, accelerate better which in turn contributes to protection.

It is more than questionable whether an electric drive will be used in the armored vehicle 2000—if it is, then at most in a kind of hybrid solution. An electric drive would, however, have excellent chances in a vehicle with an electromagnetic or electrothermal gun. Outputs of over 2,000 kilowatts are then required. At this level of power, however, gas turbines might clearly have the advantage as the primary power generators because of their smaller volume and higher speed in contrast to diesel engines. Engineer vehicles might be another example of an application which might perhaps happen sooner; in such vehicles the electric power can also be used to operate the engineer equipment.

The research work currently in progress in Germany, which also calls for practical testing in a vehicle, is very important for all the questions which still must be solved.

#### What Does the Army Need?

The future structure of the Army 2000 is primarily tailored to the predictable manpower available for conscription—but points of view relating to technical arms matters also play a role. To a greater degree than in the current structure there will be gradations in the types of brigades which we would naturally have liked to avoid if more money for modern armament could have been included in the planning. Thus, the chief of staff, Army, also aims to improve armored equipment in all types of brigades and to raise it to a uniformly high level to the extent possible—whether this will be successful is more than questionable. Thus—for the present—the armored brigades will have the highest, the infantry brigades the lowest level of armor. The details of what is planned are:

- The 16 armored brigades (also known as so-called A-brigades) will each receive two armored battalions

with Leopard 2's and two armored infantry battalions with Marders.

- The 12 armored infantry brigades (B-brigades) actually differ from the armored brigades simply because they have "only" the Leopard 1 in their 2 armored battalions—more in the role of an antitank armored vehicle. The two armored infantry battalions likewise have the Marder.
- The five infantry brigades (C-brigades), on the other hand, have—in addition to other units—only four infantry battalions, currently equipped with the M-113 armored personnel carrier.

The first improvement in the level of armor is to be accomplished in the infantry brigades by replacing as many M-113's as possible by the Fuchs transport tank with better armor (as a vehicle already introduced in the field troops) or by the Puma which was developed by Krauss-Maffei and Diehl in response to a private initiative and which in turn has many of the same parts as the Leopard 1 and 2.

According to current planning, the new Marder 2 armored vehicle is to replace the Marder 1 in the armored brigades starting about 1997 so that the vehicles freed up can be assigned to the infantry brigades.

The new armored vehicle 2000 (Leopard 3) is also supposed to appear first in the armored brigades at the turn of the century so that the Leopard 2's can replace the Leopard 1's which will have then become obsolete as battle tanks.

The Panther tank destroyer/antihelicopter armored vehicle is destined for the tank destroyer companies in the brigade units of the armored and armored infantry brigades.

Naturally it would be commensurate with the threat if the Leopard 1's would be replaced today by the Leopard 2's because only this battle tank will meet all the demands of highly mobile combat. Of course, what has to be said today about the combat effectiveness of the Leopard 1, namely that as a vehicle which was introduced into the field troops in the 1960's, is that it is no longer unconditionally adequate for the threat, this will also apply to the Leopard 2 in 10 to 15 years. Upgrading its combat effectiveness and introducing a new battle

tank is therefore indicated, particularly if the goal of again making the B- and perhaps even the C-brigades much more like the A-brigades is kept in mind.

Upon contemplation this makes sense if the number of armored combat vehicles in the Bundeswehr is considered in terms of the greatly increasing number and even quality of such vehicles in the Warsaw Pact. If, however, one or another lot of Leopard 2's is not added, then the Army will have a total of 2,050 Leopard 2's. The number of Leopard 1's will decline from 2,400 to about 1,800, if not 1,300, and the 650 old M-48's of the territorial army which were equipped with a 105-mm gun will be completely withdrawn. Will Bundeswehr tank strength be something out of the past? However, it should not be concealed that if possible, starting in 1993 several hundred Panther tank destroyers are to be acquired whose design as a platform that can be elevated creates expectations of very high combat effectiveness—studies confirm this.

Moreover, air-supported tank defense will be improved by the planned upgrading of the combat effectiveness of the PAH-1's together with HOT ammunition and the delivery of 212 PAH-2's, but not until the end of the 1990's.

[Box] Discussion of the Army's weapon systems almost inevitably brings armored vehicles to mind, especially the Leopard 2 main battle tank. It will remain in production until 1990—a successor model will be some years in coming, and even other designs such as a new armored personnel carrier or the Panther tank destroyer unit are far from being ready for series production. Thus, the German armored vehicle industry has substantial concerns about full utilization. Its capacities are too large even for the more distant future because it is possible to foresee that the importance of armored vehicles will diminish somewhat, for example, in favor of the artillery or airmobile forces. This article endeavors to provide an overview of the German Army's current and planned armored vehicle programs, of the trends affecting the factors which determine a tank's combat effectiveness, namely mobility, protection and armament, and of the utilization of the industry. In view of the fiscal difficulties and the Army's planning which must as a result be frequently changed the unit quantities—to the extent they are even cited—should be construed purely as planning numbers which can be adjusted in either direction (the general trend, however, is down).

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## TURKEY

### Office Takes Measures Against Oil Smuggled From Iraq

35540172c Istanbul DUNYA in Turkish 14 Jul 88 p 3

[Text] Ankara, Anatolian News Agency—The Directorate General of the Turkish Petroleum Office announced, in reference to the low quality fuel oil, diesel fuel, and gasoline that has been smuggled into the country, that those who sell heating and motor fuels from this source will have their licenses revoked.

According to sources in the Ministry of Finance and Customs and the Directorate General of Customs, in a circular sent to provincial governors over the signature of General Director of the Turkish Petroleum Office Mehmet Gultekin, below standard fuels containing impurities have been smuggled into the country by gypsy tankers from Iraq. It was stated in the notice, which indicated that these products were sold by fuel stations or "by having them pumped into vehicles and tanks of a simple type," that this fuel drew customers because it was cheap and that "it led to inflated levels of profit and unfair competition."

It was stated in the circular that stations who sold these kinds of fuels would lose their licensing rights and that administrative and legal actions would be brought against them.

At this time, the security director general has notified the provincial Directorates General. And the Directorate General, in a telex transmitted to all 67 provinces, requested that they be on the lookout for these "smuggled fuels," and that they tighten controls.

12575/09599

### SPO Wants Production Not Investment From State Firms

35540172b Istanbul DUNYA in Turkish 14 Jul 88 p 1

[Article by Oya Berberoglu: "Notice From SPO to Investment Firms: Up Production, Stop Investment"]

[Text] Ankara—The State Planning Office [SPO], in an advisory to investors in public enterprises, requested their cooperation in increasing production, in undertaking no new investments, and in conforming to the austerity measures issued by the prime minister. The investor corporations, responding with complaints about financing problems, asked for new subsidies. Summing up the current situation, they defended their actions by stating, "one could not abruptly downshift while going 150 kmh and drop to 50 kmh."

The directors of SPO met last week with 14 public enterprise investors. In the meeting which reviewed the first half of the year, the public corporations requested new subsidies because of financing problems, rejected the SPO recommendations, and asked for compliance with the austerity measures.

At the top of the list of SPO recommendations stood its request for an increase in production and a halt in new investments. In response to the SPO's insistence that, in this setting, it would not approve new projects, officials of public sector investor firms—after outlining problems in financing in general and indicating their desire to confront the problem of unmet capital demands and operation deficits—stated that it was impossible to complete ongoing projects, and that it would be difficult to downshift in light of investments in need of financing.

At the close of the meeting, it appeared that primary accountability lay with the Turkish State Water Works, the Post, Telegraph and Telephone Office [PTT], the State Railways, and the Turkish Electric Association. Another meeting will be held with investor firms in September. The investment ceilings placed this year on the public enterprise investors include roughly, 1,196,393,000,000 T.L. for State Water Works, 1,350,000,000,000 T.L. for Turkish Electric Power Enterprise, 866,000,000,000 T.L. for PTT and 270,000,000,000 T.L. for State Railways.

### Economy Directive

It was, at the same time, stated that the economy directives repeatedly issued by the prime minister had scarcely any effect. According to the information at hand, the Ministry of Foreign Affairs, in a memo circulated at the beginning of this month on internal thrift measures, put into effect an interesting regulation. Offices under this Ministry were informed that subscriptions to foreign newspapers paid for by the Ministry had been discontinued and that those who wished to subscribe to them could do so at their own expense. Moreover, activities like cocktail receptions and dinners have been restricted. Those who, on occasion, welcome visitors from abroad will, henceforth, have to draw on their own budgets.

12575/09599

### Aluminum, Lead Prices Rise

35540172d Istanbul GUNAYDIN in Turkish  
14 Jul 88 p 3

[Text] An increase of an estimated 44 percent was effected in the price of domestic lead ingots in the free trade zone. On the open market, the prices of processed aluminum, depending on the type, were raised from 4.8 to 7.3 percent.

The available information indicates that yesterday's price per unit of domestically produced lead ingots increased from 1,250 to 1,800 T.L. at Salipazari and Persembepazari, where processing of construction materials and basic industrial products is concentrated. The increases in price per kilogram of aluminum ranged between 250 and 400 T.L.

12575/09599

# FEDERAL REPUBLIC OF GERMANY

**Study of Long-Term Demographic Developments**  
36200218 West Berlin WOCHENBERICHT-DIW  
in German 11 Aug 88 pp 397-408

[Text] For some time, a population decline—albeit a slight one—has been noticeable in the FRG. At the beginning of 1987, 61.1 million persons lived in the FRG; that is 1 million less than in 1974, the year of maximum population density. On the one hand, this development is characterized by the low birthrates of the German population and, on the other hand, by transborder migrations of both Germans and aliens. The number of births, growing in recent times, and changes in migration provide a reason for updating demographic projections.

According to the computations presented here, the population figure of 60.6 million in the year 2000 will be only 500,000 below the present level. Only after that will the declining trend accelerate: 6 million less in the following 20 years, and a further decrease of 10 million by 2040.

In comparison with other precalculations, these results are still "optimistic." In the year 2010, for which comparisons can be made, the population figure of 58 million is about 2 million higher than the projections of the Federal Government,<sup>1</sup> and the divergence from other prognoses is even greater. This is essentially due to the fact that in the future, also, some immigration surpluses—albeit minor—from abroad are expected.

In this precalculation, also, the shifts in age groups of the population are serious: a declining proportion of those under 20 and of the potential labor force between the ages of 20 and 60; a strong increase in the number of older persons. Among the potential labor force, the proportional decrease will reach 1.5 percent at the turn of the millennium; an additional 2 percentage points can be expected by 2020, and in the following decade the proportional drop will reach 6 percentage points. Subsequently, that proportion will increase somewhat. Thus the proportion of this population group will have dropped from 58 percent (1986) to 48 percent by 2040.

But from that one cannot draw any direct conclusions with regard to the development of the labor supply. If female employment continues to rise, it will ease the strain in the labor market. It is also possible that the scarcity of labor will again lead to higher immigration of working people from abroad than has been assumed here. Without taking into consideration such processes, it is questionable to make prognoses of the burden placed on the working population who must provide for the nonworking people.

The last DIW precalculation of demographic development was published in 1984 and was based on demographic data of 31 December 1982.<sup>2</sup> Present computations are based on population figures of 31 December 1986. So far, however, they are still only extrapolated results of the last census in 1970 which, in view of the length of the extrapolation period, necessarily contain errors. Nonetheless these data were used here, as in all previous precalculations, since it will probably be some time before the results of the 1987 census are known (Table 1).

Table 1

## Demographic Development in the FRG, 1954 to 2040 (in million persons)

Year	Population at Year's End	Annual Changes Surplus of		
		Births (+) and Deaths (-)	Immigration (+) and Emigration (-)	Total <sup>1</sup>
1954	52.1	0.2	0.3	0.6
1955	52.7	0.2	0.3	0.6
1956	53.3	0.3	0.4	0.7
1957	54.0	0.3	0.3	0.6
1958	54.6	0.3	0.2	0.5
1959	55.1	0.3	0.3	0.7
1960	55.8	0.4	0.4	0.8
1961	56.6	0.4	0.3	0.7
1962	57.2	0.4	0.2	0.6
1963	57.9	0.4	0.3	0.7
1964	58.6	0.4	0.3	0.7
1965	59.3	0.4	0.1	0.5
1966	59.8	0.3	-0.2	0.2
1967	59.9	0.2	0.3	0.5
1968	60.5	0.2	0.6	0.7
1969	61.2	0.1	0.6	-0.2 <sup>2</sup>
1970	61.0	0.0	0.4	0.5
1971	61.5	-0.0	0.3	0.3
1972	61.8	-0.1	0.4	0.3
1973	62.1	-0.1	-0.0	-0.1
1974	62.0	-0.1	-0.2	-0.3
1975	61.7	-0.1	-0.1	-0.2
1976	61.4	-0.1	0.0	-0.1
1977	61.4	-0.1	0.1	-0.0
1978	61.3	-0.1	0.2	0.1
1979	61.4	-0.1	0.3	0.2
1980	61.7	-0.1	0.2	0.1
1981	61.7	-0.1	-0.1	-0.2
1982	61.5	-0.1	-0.1	-0.2
1983	61.3	-0.1	-0.1	-0.3
1984	61.0	-0.1	0.1	-0.0
1985	61.0	-0.1	0.2	0.1
1986	61.1	-0.1	0.1	-0.0
2000	60.6	-0.3	0.0	-0.3
2020	54.8	-0.6	0.0	-0.5
2040	44.8	-	-	-

<sup>1</sup>Including the difference between preliminary and final results of the statistics on natural population movement and correction of municipal results.—<sup>2</sup>The number of inhabitants established by the census of 27 May 1970 was lower by 857,707 persons than the population figure established by extrapolation for the same date. For this reason, mathematically there is a decrease in population in 1970, despite a surplus in births and immigration. Source: Federal Office of Statistics, computations by DIW

### Development of Births

A decisive factor for the development of the German population are changes in age-specific fertility, while changes in mortality are less important. While the number of live births are merely a rough indicator of the demographic development, a clearer picture of generative behavior is provided by normative indices for 1,000

women each, such as the combined birth figure or the "net reproduction rate." The combined birth figure is the sum of age-specific birth figures, i.e., of births per 1,000 women of the same age. The net reproduction rate indicates how many girls are born to one generation of women in the course of their lives (average number of female births per woman) if during the entire life span of this generation of women the age-specific birth figures and mortality probabilities remain constant.

The combined figures as well as the net reproduction rates indicate that, time and again, there were deviations from the global trend of lower fertility without, however, changing the trend (Table 2). Thus the recent increase in births is not extraordinary. Yet the actual birth figures are sometimes interpreted by the public as a turnaround in the generative behavior of the German population. But in view of past experience, such an interpretation is not admissible without reservation.

Table 2

**Period-Specific Indexes of Development of Births**

**Germans**

Year	Live Births, in 1,000's	Combined Birth Figure <sup>1</sup>	Net Reproduction Rate <sup>2</sup>
1970	747.8	2,010	0.946
1971	697.8	1,894	0.889
1972	609.8	1,666	0.781
1973	536.5	1,474	0.694
1974	518.1	1,432	0.674
1975	504.6	1,368	0.642
1976	515.9	1,392	0.653
1977	504.1	1,352	0.634
1978	501.5	1,334	0.627
1979	506.4	1,333	0.628
1980	540.0	1,397	0.658
1981	544.5	1,401	0.655
1982	548.2	1,380	0.647
1983	532.7	1,320	0.620
1984	529.4	1,291	0.604
1985	532.4	1,277	0.602
1986	567.3	1,339	0.629
1987			
First half	277.2	1,356	-

<sup>1</sup>The combined birth figure is the sum of age-specific birth figures, i.e., of births per 1,000 women of the same age.—

<sup>2</sup>The net reproduction rate indicates the average number of girls born per woman at constant age-specific birth figures and mortality probabilities. Source: Federal Office of Statistics

The latest rise in births among German women can essentially be traced back to two effects: first, the age structure effect, i.e., the increased number of women in those age groups which show the highest age-specific number of births (Table 3); secondly, the trend among women to have children later than in the past. Due to birth control and longer education of women, first births were postponed. In 1970, the average age of women giving their first birth was 24.3 years, in 1986 it was 26.4 years.

Table 3

**Average Female Population From Age 20 to Less Than 35**

Year	Germans	Foreigners
1979	5,491,097	639,477
1980	5,624,489	656,320
1981	5,798,473	671,072
1982	5,946,206	667,326
1983	6,079,510	645,342
1984	6,209,546	619,304
1985	6,328,610	604,901
1986	6,441,897	616,287

Source: Federal Office of Statistics

But the change in age-specific birth figures did not cause the birth figures of women "cohorts" (1,000 women of the same year of birth) to have become higher overall. On the contrary: Compared to older age groups, among the younger ones a decrease in birth figures can be noted. This means that the cumulative number of births among a group of women born in the same year so far was lower among the respective younger women than among older groups of women (Cohorts). Among the cohort-specific fertility standards shown in Table 4, the women born in 1935 have had all their children. For the other age groups, the further development of births until the end of the fertility period has been estimated.

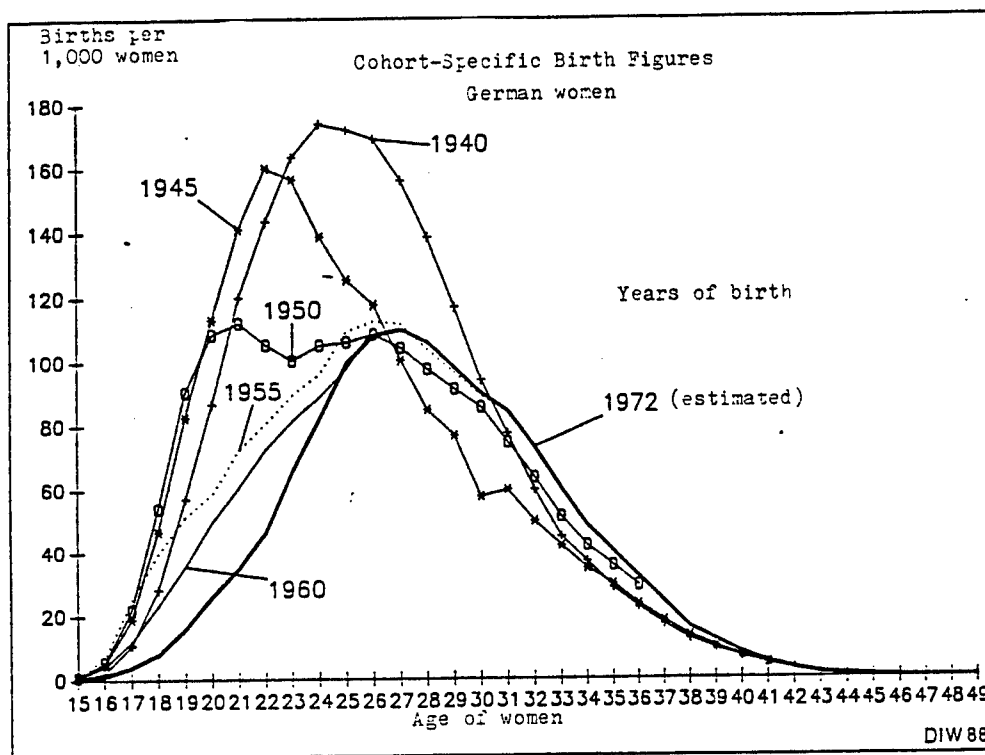
Table 4

**Combined Birth Figure and Net Reproduction Rate for Women Born in the Same Year (Cohort)**

Women's Year of Birth	Combined Birth Figures <sup>2</sup>	Net Production Rate <sup>1</sup>
1930	2,144	1.024
1935	2,165	1.034
1940	1,954	0.933
1945	1,721	0.822
1947	1,722	0.823
1949	1,685	0.805
1951	1,626	0.777
1952	1,594	0.761
1953	1,557	0.744
1954	1,515	0.724

Table 4

<sup>1</sup>The net reproduction rate indicates how many girls were born to one generation of women in the course of their life (average number of female births per woman), if during the entire life span of this generation of women the age-specific birth figures of a certain cohort and a certain mortality table are applied; as of calendar year 1970, only Germans.—<sup>2</sup>To complete cohort-specific fertility, the missing age-specific birth figures were complemented by estimates of the Federal Office of Statistics. Source: WIRTSCHAFT UND STATISTIK, 1986, 4, p 144



#### Projection of the Frequency of Births by German Women

In this projection, the changes in the age-specific fertility of individual cohorts of certain years of birth must be taken into account. Only in this manner can one include in the study the overall development of the individual age groups, since the development of individual determinants of birth figures does not depend only on present influences, but also on the way of life in the past, in which women born in the same year have more in common than with women born in different years or even of different generations. The graphic shows age-specific birth figures for selected years of birth of German women. It becomes evident how the level of births as well as the structure of births have changed between cohorts.

The decrease of births among younger women is quite evident. The age-specific birth figures between the ages of 15 to 24 are regularly below those of the preceding cohort. There are many reasons for it: The number of unwanted children has been on the wane since approximately the mid-1960's; also, due to women's longer education and increasing employment, the age of getting married has been postponed and the attitude toward marriage and family has changed ("only" a mother and housewife). In addition, through better family planning birth can be postponed to the point in time corresponding to the wishes of both partners. This change in generative behavior becomes clear in the shift of maximum age-specific birth figures to a later age. In the age

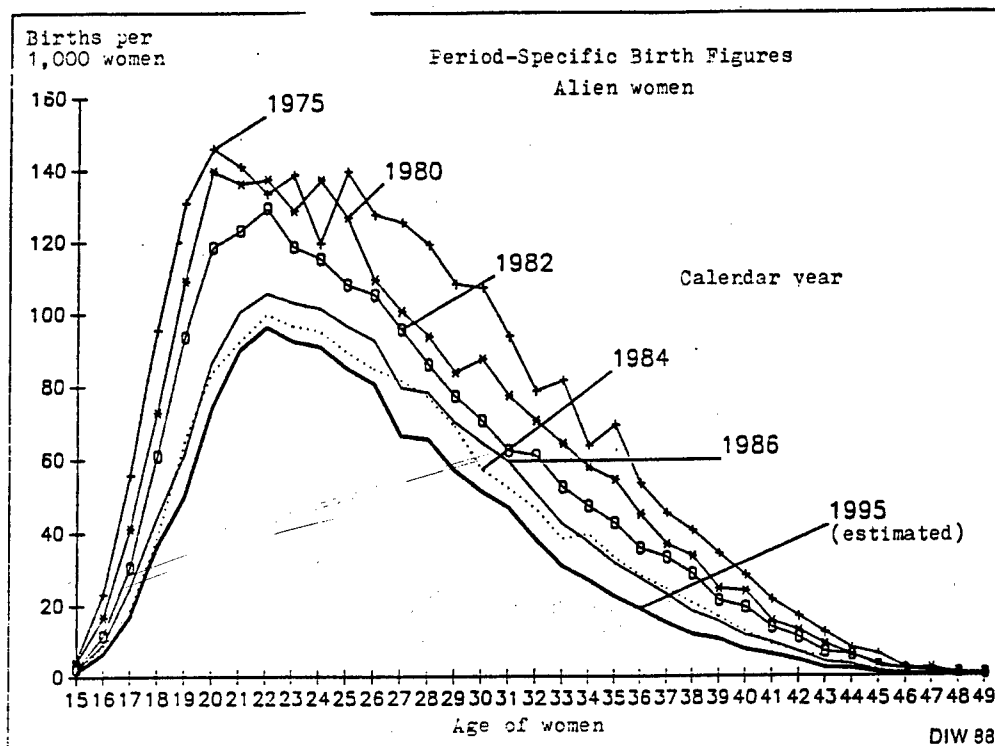
group of 24- to 29-year-old German women, sometimes even an increase in fertility can be noted.

One must assume that in the future women will continue to endeavor not to have children in their younger years, for example, to gain greater leeway in decisionmaking, or to provide a better material basis for their children's education. So it can be assumed that in future, also—although to a lesser degree—the shift of first births until after the completion of education will continue. But since fertility decreases with the progressive age of women and men, for this reason alone the number of childless women (marriages) will increase. Thus the level of fertility will generally decline.

Although some of the births will be made up in later years, the increase [in births] among older women does not balance the birth "loss" among younger women. Overall, births per woman will continue to decline in the future.

These assumptions on birth distribution have been compressed into a fertility pattern for pre-calculations, for which women born in 1972 were selected as the "model cohort." According to these assumptions, 1,000 women of that year of birth will bear approximately 1,300 children in the course of their lives.

It is assumed that among German women the age-specific fertility figures will in future approach the fertility pattern of the 1971 cohort and will remain stable after that. An analysis of cohort-specific birth figures



according to the birth sequence indicates that the proportion of women with three or more children has declined continuously. This trend, although to a lesser degree, will probably continue in the future: The proportion of childless women continues to grow, and the number of third and fourth births is declining. Families with one or two children will be even more characteristic than at present.

#### Birth Development Among Foreigners

The age-specific birth figures of foreign women are higher overall than those of German women. Nonetheless here, also, a decline in birth frequency can be noted. This is indicated by the development of period-specific birth figures: The age-specific fertility among all age groups has declined since 1975 (see graphic). These birth figures are/ distorted, on the one hand, by migration movements (wives

arriving later, effects of "making-up time") and, on the other hand, through differentiated assignment of live births to alien mothers. Children of a foreign mother and German /father have German citizenship. In determining birth figures, they are assigned according to citizenship, and therefore not among foreigners.

If one classifies fertility figures according to the nationality of the foreigners, it becomes evident that only the generative behavior of the Turkish population diverges strongly from that of Germans (Table 5). In recent years, the birth figures of Spanish, Greek and Portuguese women are even noticeably lower than that of German women. For precalculating the fertility of the alien resident population, future structural shifts between the nationalities will be of importance. In addition it can be assumed that, with longer residency, the generative behavior of foreigners will approach that of the indigenous population.

Table 5

Combined Birth Figures According to Selected Nationalities of Foreign Mothers

Year	Turkey	Yugoslavia	Portugal	Spain	Greece	Italy	For comparison: Germans
1981	3,455	1,678	1,522	1,247	1,614	1,874	1,401
1982	3,020	1,572	1,499	1,149	1,585	1,775	1,380
1983	2,563	1,340	1,302	1,010	1,362	1,588	1,320
1984	2,425	1,229	1,144	861	1,209	1,451	1,291
1985	2,380	1,177	1,052	819	1,125	1,377	1,277
1986	2,547	1,213	1,118	822	1,102	1,387	1,339

Source: Federal Office of Statistics

For a preestimate of age-specific birth figures for foreigners, a procedure analogous to that of precalculating the fertility of German women would be desirable. But a cohort-specific analysis of the fertility of foreign women is problematical in view of the changing makeup of this group. It is assumed here that, in future, the age-specific birth figures of aliens will be characterized by the following tendencies:

- Since the length of residence of foreign women will continue to increase in the future, fertility will decrease, particularly among the younger and older age groups. For the generation born and reared in Germany in particular, the influence of the guest country may well overlay the traditional behaviorism of the homeland. Nevertheless, these age-specific birth figures among the youngest age groups will probably be higher than among German women.
- The nationality structure will continue to shift. The number of Turkish women will decline. This will lower the overall fertility of alien women.
- The number of mixed-nationality marriages will increase. Since the generative behavior of such marriages tends to follow that of the indigenous population, the fertility pattern will also adjust to the German pattern.
- Thus the age-specific birth figures will slightly decrease overall, whereby the decline will affect the younger and older age groups less.

For the development of age-specific birth figures for foreign women, it is expected that the shift in generative behavior observed in the past will continue. Because of the foreseeable development of fertility parameters, the decline in birth numbers will be weakened in medium-age groups. The stronger decline in other age groups leads to a change in birth patterns, which will continue until 1995. It is assumed that the fertility reached at that point will no longer change.

### The Development of Mortality Figures

Mortality among the entire population continues to decline. Age-specific mortality rates according to the abridged mortality table of 1984-86, depending on age and sex, were between approximately 6 percent to 61 percent below that of the last general mortality table of 1970-72 (Table 6). The decrease in mortality probability is particularly noteworthy among the younger age groups. This is due to increasingly better medical care which is overlayed in other age groups by other effects, such as frequency of traffic accidents. Even today, cause of death is primarily due to heart and circulatory diseases, followed by malignant neoplasms. The stress factors of our fast-moving times will probably not decline in the future.

For the future development of the mortality rate of German men and women, it is assumed that mortality will continue to decrease, although at declining rates. An analysis of mortality development in countries with a comparatively low mortality rate at present (such as Japan and Sweden, for example) lets one expect such a development. Although the

future will probably bring an approximation to these mortality ratios, the lag behind these countries will not be completely eliminated. Projections expect a further decline in the mortality rate, by about two-thirds of the decrease during the years 1967 to 1985.

The age-specific mortality probabilities of foreigners living in the FRG diverge considerably from those of Germans. Mortality rates for the first 10 years of age are higher than for Germans, while in the other age groups the opposite is true. The lower death rates for older foreigners are probably due to the fact that seriously ill persons return to their homelands. In addition, the migration movements also distort the picture of mortality because it is primarily healthy people who move to a foreign country. This means that among immigrant workers the "good" risks are disproportionately large. A comparison between periods of age-specific mortality figures shows strong fluctuations between individual years, but there exists the tendency of lower mortality among younger age groups. Since the mortality figures are highly uncertain because of the few cases of death per age group and per year, the age-specific mortality probabilities of the period 1984-86 are being used here, in which the mortality figures for ages 61 and above were adapted to those of Germans.

Table 6

### Decline in Mortality Probability Compared to 1970/72

In percent

Completed Years of Age	1977-79		1984-86		2000		2015	
	Men	Women	Men	Women	Men	Women	Men	Women
0	-37	-36	-61	-60	-78	-76	-81	-79
1	-27	-28	-54	-52	-72	-73	-75	-77
5	-28	-26	-58	-51	-77	-71	-80	-75
10	-26	-20	-50	-47	-68	-63	-72	-68
15	-14	-10	-45	-42	-63	-61	-68	-66
20	-13	-10	-40	-38	-58	-56	-64	-62
25	-16	-8	-36	-31	-52	-47	-58	-54
30	-12	-7	-31	-29	-47	-45	-54	-52
35	-10	-16	-28	-27	-42	-40	-49	-47
40	-7	-15	-24	-29	-40	-44	-47	-50
45	-0	-13	-17	-32	-31	-49	-39	-56
50	-6	-14	-14	-29	-25	-45	-33	-52
55	-7	-9	-15	-23	-26	-38	-32	-45
60	-13	-16	-20	-24	-31	-38	-38	-45
65	-13	-18	-24	-29	-39	-43	-46	-50
70	-9	-16	-21	-30	-35	-47	-42	-53
75	-4	-14	-12	-26	-23	-42	-30	-49
80	-3	-10	-8	-20	-14	-34	-18	-41
85	-5	-7	-6	-13	-6	-24	-4	-30

Source: Federal Office of Statistics; DIW computations

Table 7  
Migrations between the FRG and Foreign Countries  
in 1,000 persons

Year	Germans							Aliens						
	Male		Female		Influx	Egress	Net	Male		Female		Influx	Exit	Net
	Influx	Egress	Influx	Egress				Influx	Exit	Influx	Exit			
1970	45.0	30.0	51.3	33.7	96.2	63.7	32.5	668.3	310.3	307.9	124.4	976.2	434.7	541.6
1971	56.7	26.8	60.2	29.9	116.9	56.8	60.2	578.6	359.2	292.1	141.1	870.7	500.3	370.5
1972	48.6	27.4	50.2	29.7	98.8	57.1	41.7	554.7	357.6	314.4	169.2	869.1	526.8	342.3
1973	41.7	27.9	45.7	29.3	87.4	57.2	30.2	301.5	386.1	241.0	195.9	542.4	582.0	-39.5
1974	42.9	26.6	45.9	28.3	88.8	54.9	33.9	198.3	376.1	169.0	224.2	367.3	600.4	-233.1
1975	53.9	26.4	56.6	28.8	110.5	55.3	55.2	215.0	309.3	173.1	206.3	388.2	515.6	-127.4
1976	56.2	26.4	60.2	28.6	116.4	55.0	61.4	238.5	266.7	185.0	185.5	423.5	452.2	-28.7
1977	57.9	26.2	61.3	28.3	119.2	54.5	64.6	266.8	241.8	189.9	164.2	456.7	406.0	50.7
1978	59.4	25.9	61.4	28.6	120.8	54.6	66.2	338.2	221.1	207.8	145.0	545.9	366.2	179.8
1979	60.3	27.0	60.9	28.5	121.2	55.5	65.7	403.7	243.5	228.6	142.5	632.3	386.0	246.3
1980	60.9	27.9	62.2	29.0	123.1	57.0	66.1	301.5	264.2	200.5	151.5	502.0	415.8	86.2
1981	47.6	30.1	50.8	32.2	98.3	62.2	36.1	185.5	275.0	136.9	158.9	322.4	433.9	-111.4
1982	46.3	30.4	49.3	33.6	95.6	64.0	31.6	156.2	256.8	120.3	168.4	276.4	425.2	-148.7
1983	62.2	29.0	61.6	32.8	123.8	61.8	62.0	186.0	315.4	147.3	231.0	333.3	546.5	-213.2
1984	55.4	29.2	56.7	31.8	112.2	61.0	51.2	229.0	214.0	170.9	153.7	400.0	367.7	32.2
1985	59.1	29.8	59.9	32.3	119.0	62.1	56.9	272.2	201.2	207.3	146.8	479.5	348.0	131.5

Source: Federal Office of Statistics.

### The Development of Migrations

Transborder migrations have a considerable influence on demographic development in the FRG. This holds true not only for aliens, but also for persons of German citizenship for whom the extent of immigration has been mostly underestimated in the past. During the past 16 years, an annual average 53,000 men and 56,000 women of German nationality immigrated, while 28,000 men and 30,000 women emigrated on the average per year (Table 7). The gross movements fluctuate during the course of time, but no continuous decrease can be noted.

The largest net immigrations come from the GDR, Poland, and Romania. For the future, also, similarly high immigration flows from these countries can be expected, at least until the turn of the millenium. For this reason the migration of Germans is placed on the premise that by the end of the 1980's, the migration flow will correspond to the average of the years 1983-85. For the subsequent period up to the turn of the millenium it has been assumed that the migration flow will decline slightly; 40,000 persons net will immigrate per year. Only after the year 2000 can it be expected that the migrations will decline more noticeably. For one, the number of Poles of German origin will have decreased perceptibly, and furthermore, the birthrate in Eastern industrial countries also lies far below the level needed to maintain the status quo. For this reason alone the immigration potential of Germans will shrink. For the period until 2019 (2040), we have calculated on the basis of annual net immigrations of 20,000 (10,000) persons. These assumptions result in higher net effects of migration than in other projections.

The annual migration flows of aliens are noticeably higher and are subject to greater fluctuations than those of Germans. They depend essentially on the economic

situation in the FRG. The influence of the economic component is, however, not the same for all countries of origin and target countries, respectively. For example, migrations between EC countries (with the exception of Italy and Greece) and the FRG are largely independent of the economy, as are the net migrations from Poland. This differs for migrations between Turkey and the FRG.

Transborder migrations are also determined by the political situation in the homeland as well as in Germany. The introduction of the EC [unified] domestic market in 1992, and the admission of new member states, will certainly influence the size of migrations between EC member states and the FRG. In addition, the difference in standards of living between the states is a determinant for the size of the migration flows.

If one limits the study to observing the development of the net effects of migration, the great importance of the economic component becomes clear: During the 1974-77 period of recession, the number of aliens decreased by an average of 107,000 annually. Even more pronounced was the decline during the years 1982-84. The average annual decrease of 158,000 aliens during that period was, however, so high also because a massive promotion of aliens returning home considerably strengthened the economic influence.

By contrast, the upturn period in the years after 1978 was accompanied by strong and positive net effects of migration: In the period 1978-81, average annual immigration surpassed emigration of aliens by 141,000. After 1985, also, there were again positive net effects of migration. The annual average surplus of 80,000 during 1985-86 will probably be surpassed in 1987.

There are some indications that in future the maneuvering room for restrictive political measures vis-a-vis foreigners will not become greater so that, overall, the net effects of migration will continue to be slightly positive. Here they are calculated at 50,000 annually for the period between 1987-90, whereby even now the results for 1987 make one expect an immigration net effect almost twice as high. For the ensuing 10 years, an annual surplus of 30,000 has been calculated. From 2000 onward, a further decline to 20,000 persons annually has been assumed until 2019, and 10,000 persons per year after that. In view of possible scarcities in the labor market after the turn of the millenium, this is a rather cautious assumption.

### Survey of the Results of Projections

Under these preconditions, the number of inhabitants of the FRG will decline only slightly from 61.1 million people at the beginning of 1987 to 60.6 million at the turn of the millenium. Only after that time will the downward development accelerate: In 2020, 55 million persons will still live in FRG; in 2040, there will only be approximately 45 million people (Table 8). While the German population will decrease from 56.6 million persons to 48 million (2020), and to 37.9 million (2040), the number of foreigners will still be on the increase. By the turn of the millenium, the foreign resident population will increase by about 1 million persons. Half of this number is accounted for by the cumulative net effects of migration during that period. In 2020, almost 7 million persons with foreign citizenship will be living in the FRG. Only the decrease in net influx assumed for the period after 2020 will bring the increase in number of aliens largely to a standstill. Possible influences of changed naturalization practices on the number of aliens have not been taken into account.

According to the results of this precalculation, the number of inhabitants in the FRG will decline less strongly than was assumed in other projections (Table 9). The results presented here are higher by 2 million in 2010 than the computations by the Federal Government. The differences compared to other pre-estimates are even greater. The differences are predominantly due to divergences in estimating the development of the foreign population.

A comparison of the proportion of aliens among the population in 2010—the last year for which results exist in a number of projections—shows that the share of foreigners with almost 11 percent is higher than in other computations. The greatest difference (of 2.4 percentage points) appears in comparison with the calculations of the Federal Government.

### Striking Changes in Age Structure

Even more serious than the general decline in population figures are the shifts in the age structure of the population. The share of those under 20 years of age will decrease from 22 percent in 1986 to 15 percent in 2040 (Table 10). In this demographic group, the number of children under the age of 3 as well as those between ages

Table 8

### Results of Demographic Precalculation for the FRG

	Year Ending	Men	Women	Total
		Million persons		
Germans	1986	26.8	29.7	56.5
	2000	26.5	28.4	54.8
	2020	23.3	24.6	48.0
	2040	18.3	19.6	37.9
Aliens	1986	2.5	2.1	4.7
	2000	3.1	2.7	5.8
	2020	3.5	3.3	6.8
	2040	3.4	3.5	6.9
Total	1986	29.3	31.9	61.1
	2000	29.6	31.0	60.6
	2020	26.8	28.0	54.8
	2040	21.7	23.1	44.8
		1986=100		
Germans	1986	100.0	100.0	100.0
	2000	98.7	95.5	97.0
	2020	87.0	83.0	84.9
	2040	68.2	66.0	67.0
Foreigners	1986	100.0	100.0	100.0
	2000	124.0	128.0	123.4
	2020	140.0	157.1	144.7
	2040	136.0	166.7	146.8
Total	1986	100.0	100.0	100.0
	2000	101.0	97.3	99.1
	2020	91.5	87.8	89.7
	2040	74.1	72.4	73.3

Source: DIW computations

3 and 6 will drop by 1 million each. The decrease among the age group between 6- to 10-year-olds is somewhat higher. The number of older pupils will fall even more: Among those between the ages of 10 and 16, the number of pupils will drop by over half by 2040; the number of older pupils and students will decline even more.

Conditions in the labor market will also change drastically: The potential labor force will decline not only numerically, but also as a percentage of the population. Up to the turn of the millenium, this decline of 1.5 percentage points—from 57.3 percent (1986) to 55.8 percent (2000)—is not yet very pronounced, nor in the subsequent 20 years (-2 percentage points). But then it becomes much more serious. This is especially true for the decade after 2020; the proportional decline will be somewhat over 6 percentage points. After that time, the percentage of the potential labor force will increase until 2040 and amount to a little over 48 percent.

Even if in future the age limit for receiving retirement pay should be pushed up and the potential labor force be extended, for example, to an upper limit of 70 years of age, the proportion of the potential labor force according to this adjustment will decline from almost 67 percent (1986) to approximately 61 percent (2040).

Table 9  
Results of Various Pre-calculations of the Population in the FRG  
in 1,000 persons

		1986	1990	2000	2010	2020	2030	2040
DIW 1988 1)	Total	61.1	61.1	60.6	58.2	54.7	50.1	44.8
	Germans	56.5	56.1	54.8	51.9	48.0	43.2	37.9
	Aliens	4.7	5.0	5.8	6.4	6.8	6.9	6.9
Birg 1987 2)	Total	-	60.4	58.3	54.9	50.7	46.0	-
	Germans	-	55.7	53.6	49.8	45.4	40.7	-
	Aliens	-	4.7	4.8	5.1	5.2	5.3	-
BMI 3)	Total	-	60.7	59.6	56.2	52.0	46.9	-
	Germans	-	56.2	54.9	51.5	47.3	42.6	-
	Aliens	-	4.5	4.7	4.8	4.6	4.3	-
Prognos 1986 4)	Total	-	60.4	59.1	55.9	-	-	-
	Germans	-	55.9	54.4	51.1	-	-	-
	Aliens	-	4.5	4.7	4.8	-	-	-
DIW 1984 5)	Total	-	60.8	59.7	57.2	52.9	48.3	-
	Germans	-	56.2	54.7	52.0	47.6	43.3	-
	Aliens	-	4.6	5.0	5.3	5.3	5.1	-

1) Basic variant.— 2) H. Birg, H. Koch, Der Bevoelkerungsrueckgang in der Bundesrepublik Deutschland [The Population Decline in the FRG], Frankfurt/New York, 1987.—3) Federal Ministry of the Interior, Modellrechnungen zur Bevoelkerungsentwicklung in der Bundesrepublik Deutschland [Pilot Calculation of Demographic Development in the FRG], Bonn, 1987; Model I with Model A.—4) Prognos AG, PROGNOSE-REPORT No. 12, Basle, 1986.—5) Langfristige Perspektiven der Bevoelkerungsentwicklung in der Bundesrepublik Deutschland [Long-term Prospects of Demographic Development in the FRG], B. Koss, ed. In: WOCHENBERICHT DES DIW, No 24/1984, p 277 ff.

If proportional shifts of such an extent must be expected for the potential labor force, it automatically raises the question of its effects on the demographic development. One cannot dismiss the possibility that bottlenecks in the labor market, due to the declining availability of labor from the indigenous population, will lead to increased immigration from abroad, leading to a similar development as observed in the 1960's and 1970's. But in order to consider this influence it would be unavoidable to include the long term economic development, an expansion which, however, was not possible within the framework of this study.

Furthermore, one must also take into account the fact that from persons of an age able to work, one cannot simply deduce the number of the potential labor force available to the labor market: It is, therefore, not only a matter of the development of the number of people capable of working, but also of the "extent of utilization" in the form of actual participation in the labor force. Should the participation of women in the labor force continue to rise, this would already mitigate the strain in the labor market. Whether this process is sufficient to balance the labor market even in times of a greatly declining labor force depends essentially

Table 10  
Demographic Development in the FRG for Selected Age Groups

Age Groups		in million persons						Structure in percent					
		1986	2000	2010	2020	2030	2040	1986	2000	2010	2020	2030	2040
0 to 3	Total	1.8	1.6	1.2	1.2	1.0	0.9	2.9	2.6	2.1	2.3	2.0	1.9
Elementary sector													
3 to under 6	Total	1.8	1.8	1.3	1.2	1.1	0.9	3.0	2.9	2.2	2.3	2.2	2.0
Primary sector													
6 to under 10	Total	2.3	2.5	1.8	1.6	1.6	1.2	3.8	4.1	3.2	3.0	3.2	2.8
Secondary sector I													
10 to under 16	Total	3.9	3.7	3.3	2.5	2.5	2.1	6.3	6.1	5.7	4.6	5.0	4.7
Secondary sector II													
16 to under 19	Total	2.7	1.8	1.9	1.4	1.2	1.2	4.4	2.9	3.3	2.5	2.5	2.6
Tertiary sector													
19 to under 26	Total	7.5	4.3	4.5	4.0	3.1	3.1	12.2	7.0	7.8	7.3	6.1	6.8
under 20	Germans	12.1	10.8	8.9	7.2	6.6	5.5	21.3	19.7	17.2	15.1	15.3	14.4
	Aliens	1.5	1.1	1.3	1.3	1.2	1.2	31.7	19.2	20.5	18.5	17.8	17.8
	Total	13.5	11.9	10.2	8.5	7.8	6.7	22.1	19.6	17.5	15.5	15.7	15.0
20 to under 60	Germans	32.1	29.7	28.0	25.0	19.6	17.7	56.8	54.1	54.0	52.2	45.4	46.7
	Aliens	2.9	4.2	4.2	4.4	4.2	3.9	63.0	71.7	65.3	65.0	60.2	57.0
	Total	35.0	33.8	32.2	29.4	23.8	21.6	57.3	55.8	55.3	53.8	47.5	48.3
60 and older	Germans	12.3	14.4	14.9	15.7	17.0	14.7	21.8	26.2	28.8	32.7	39.3	38.9
	Aliens	0.2	0.5	0.9	1.1	1.5	1.7	5.3	9.0	14.3	16.5	21.9	25.3
	Total	12.6	14.9	15.9	16.8	18.5	16.5	20.6	24.6	27.2	30.7	36.9	36.8
80 and older	Total	2.1	2.2	2.9	3.5	3.2	3.6	3.5	3.6	4.9	6.5	6.3	8.0
Total	Germans	56.5	54.8	51.9	48.0	43.2	37.9	100.0	100.0	100.0	100.0	100.0	100.0
	Aliens	4.7	5.8	6.4	6.8	6.9	6.9	100.0	100.0	100.0	100.0	100.0	100.0
	Total	61.1	60.6	58.2	54.7	50.1	44.8	100.0	100.0	100.0	100.0	100.0	100.0

Source: DIW computations.

on the determinants of the economic development. Its future constellation ultimately decides also the relations between production and labor used, and thus the scope available for supplying the entire population with consumer goods.

The decline in the number of persons in their younger and middle years is confronted with an increase in the number of older people (60 years and over) (see graphic). This age group will grow by almost 4 million to 16.5 million persons (2040). This shift is of particular importance for old age security. If one relates the persons of retirement age to persons of working age, one obtains the "old age quotient," which is a rough indicator providing reference points for the future development of contributors [to social security] and pensioners. According to pre-estimates, the old age quotient will rise from 36 percent in 1986 to 76 percent in 2040. With a simultaneous decrease of the "youth quotient" (persons of an age up to 20 years related to persons of working age) from 39 percent to 31 percent, the numerical ratio of persons not yet or no longer of working age to the population of working age will rise by over 40 percent (from 75 percent to 107 percent). This ratio is sometimes called the "total burden quotient," because it is a first rough indicator of how much working people are burdened by expenditures for consumption by nonworking persons. However, the development of this burden does not depend solely on the age structure of

the population, but also quite decisively on work participation of people capable of working.

For example, if the age limit were raised to 70 years after the turn of the millenium and one counted all persons over 60 up to age 70 among the labor force, then the old age quotient would only rise from 36 percent (1986) to 39.5 percent (2040) and, during the same period, the total burden quotient would even decrease from 75 percent to 64 percent due to the regressive birthrates.

However, interpretation of these burden quotients requires caution. Even with a decrease in the number of children and youngsters, reductions in spending, for example in kindergarten and the school system, will not be at the same level. Similarly, an increase in the old age quotient must not be equated with a corresponding rise in contributions to old-age insurance paid by contributors, since there are additional determinants for financing pension insurance. Nevertheless it is to be expected that the shifts in the demographic age structure will cause financial problems in the sector of old-age insurance and, to a lesser extent, in health insurance. In the area of nursing care for the aged, even today one can see a need for future action: The proportion of persons requiring more frequent nursing care (80 years and older) will grow by about 1.5 million. In 2040, 8 percent of the population will be in this age group.

#### Outline

#### Projections Concerning the Future Development of the Death Rates and Birthrates as Well as the Migration Movement

German

Foreign

#### Mortality Figures

A further reduction in the mortality rates by two-thirds of the decrease between the years 1967 through 1985, with decreasing rates

The age-specific death rate probabilities for the period 1984-86 will remain the same.

#### Birth Figures

Ground  
variants

Further reductions of the cohort-specific fertility to the level of 1,300 children per 1,000 women

Further changes in the flexibility pattern by a slowing of the reduction in the number of births to continue until 1995. (1,260 births per 1,000 women)

Upper Vari-  
ants

A further reduction in the age-specific birth figures only in the younger and older age groups; in the middle age groups a slight increase to the level of 1,520 children per 1,000 women of the same age group.

The average birth figures for the last 5 years will remain constant (1,520 births per 1,000 women)

Lower Vari-  
ants

A sharper reduction in the birth figures to the level of 1,200 children per 1,000 women of the same age group.

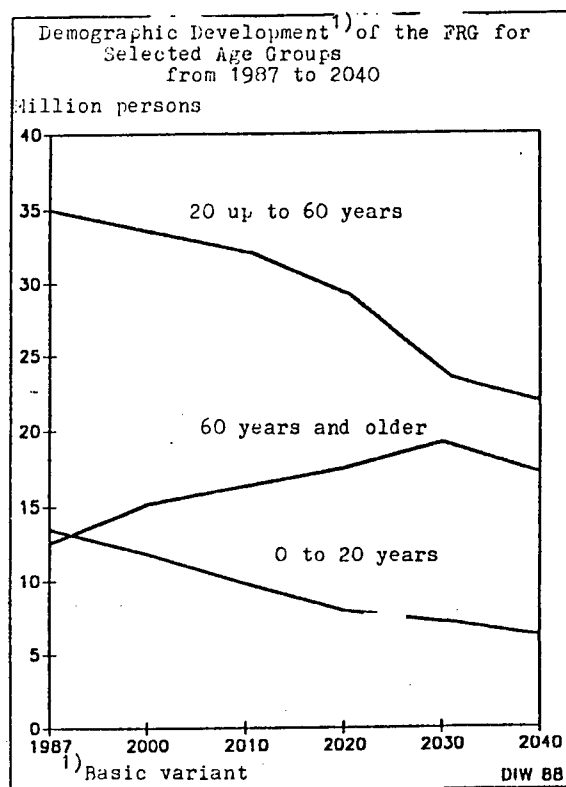
A stronger adaptation of the age-specific birth figures to the flexibility pattern of German women, that is to say, a sharper reduction in the fertility of the younger and older age groups (1,150 births per 1,000 women)

#### Migration Figures

Yearly Balance

Yearly Balance

	1987 to 1989	1990 to 1999	2000 to 2019	2020 to 2040	1987 to 1989	1990 to 1999	2000 to 2019	2020 to 2040
Ground Variants	50	40	20	10	50	30	20	10
Upper Vari- ants	50	45	25	15	50	50	30	20
Lower Vari- ants	50	35	15	5	50	20	10	5



### Two Variants of Demographic Development

It is clear that the results of such long term projections depend very largely on the assumed premises. In order to point out the scope of divergence that has to be taken into account here, an attempt has been made to assemble in an upper variant those factors which would justify even a smaller decrease in the future population. In a lower variant, on the other hand, tendencies have been assumed which work toward a greater population decrease. In the outline, the premises for the upper and lower variants are presented together with the basic variant. The variants differ in birth figures as well as migrations. Death figures were left unchanged, however.

In the upper variant, the number of inhabitants in 2000 will be 0.6 million persons above, in the lower variant it will be about 1 million people below today's population figure (Table 11). The divergences between the assumptions on birth development and net effects of migrations have a greater effect after the turn of the millenium: According to the upper variant, by 2020 (2040) 58 (50) million people will be living in the FRG, while it will be 53 (42) million according to the lower variant. This makes it clear that in the long term, even a rise in birth figures among German as well as alien women, and higher net immigrations to the extent assumed here, cannot prevent the decline of population figures. Still, in the upper variant the population figure in 2040 is higher

by 1.5 million foreigners and 3.5 million Germans—a total of about 5 million people—than in the basic variant.

In the upper variant, the number of aliens increases to 6.2 million (2000) and to 7.7 million in 2020. After that, the number of aliens increases only slightly to 8.4 million; the percentage of foreigners by 2040 rises to almost 17 percent. The lower variant also shows an increase in the foreign population. As of 2020, the number of foreigners remains at a level of 6.4 million. Thus the proportion of foreigners is 2 percentage points lower than in the upper variant.

Table 11

### Variants of Demographic Projections for the FRG

	Year Ending	Men	Women	Total
Lower Variant Million Persons				
Germans	2000	26.3	28.2	54.5
	2020	22.8	24.2	47.0
	2040	17.3	18.7	36.1
Foreigners	2000	3.1	2.6	5.7
	2020	3.3	3.1	6.4
	2040	3.2	3.2	6.4
Total	2000	29.4	30.8	60.2
	2020	26.1	27.3	53.4
	2040	20.5	21.9	42.4
Upper Variant Million Persons				
Germans	2000	26.8	28.7	55.4
	2020	24.3	25.6	49.9
	2040	20.0	21.4	41.4
Foreigners	2000	3.4	2.9	6.2
	2020	4.0	3.7	7.7
	2040	4.3	4.2	8.4
Total	2000	30.1	31.5	61.7
	2020	28.3	29.3	57.6
	2040	24.3	25.5	49.8
in percent of Lower Variant				
Germans	2000	101.8	101.6	101.7
	2020	106.5	105.9	106.2
	2040	115.7	113.9	114.8
Foreigners	2000	109.7	109.3	108.8
	2020	121.2	119.4	120.3
	2040	134.4	131.3	131.3
Total	2000	102.4	102.4	102.5
	2020	108.4	107.3	107.9
	2040	118.5	116.4	117.7

Source: DIW computations

Footnotes

1. Federal Ministry of the Interior, Modellrechnungen zur Bevoelkerungsentwicklung in der Bundesrepublik Deutschland [Pilot Computations on Demographic Development in the FRG], Bonn 1987. The variant Model I was compared here with Model A.

2. Langfristige Perspektiven der Bevoelkerungsentwicklung in der Bundesrepublik Deutschland [Long term Prospects of Demographic Development in the FRG]. B. Koss, ed. In: WOCHENBERICHT DES DIW, 24/1984, p 277 ff.

9917

TURKEY

Missionaries on Trial in Izmir

35540174a Istanbul HURRIYET in Turkish  
13 Jul 88 p 18

[Text] Six people, two Americans and four Turks, who call themselves "Congregation of Believers of Jesus the Messiah" or "Network for Spreading Christianity," stood trial with a possible prison sentence of up to one year, accused of propagating Christianity by mailing literature, booklets, magazines, and brochures to predetermined addresses in various parts of the country. Saying that they are Christians and that they have camps in the Enez district of Edirne, the defendants rejected the accusations.

Acting after receiving a "very secret" memo from the Eskisehir Police Department last March, Izmir Police Department's Political Desk teams took into custody Glen Charles Garner, an American teaching English at the Private Turkish High School, identified as the party responsible for the "Congregation of Believers of Jesus the Messiah" in Turkey. Following a thorough investigation of Garner, Rahime Dogan, Recep Avser, Melahat Karaardic, Hamdi Zekai Tamyar, and George Frances Keenan, accused of being members of the same network, were also taken into custody.

12777/7310

Sect Novices From FRG Visit Members' Families

35540174b Istanbul HURRIYET in Turkish  
11 Jul 88 p 15

[Text] Novices of Cemalettin Kaplan, known as "The Dark Voice" for his activities in West Germany against Turkey, are touring Anatolia inch by inch.

The novices started their pilgrimage trip in the West German city of Dusseldorf on a passenger bus, license plate number ME SN 58, driven by a Dutch driver and entered Turkey from Kapikule after touring Austria, Yugoslavia, and Bulgaria. The 30 novices, wearing turbans and colorful robes, arriving in Konya by way of Edirne, Istanbul, Kocaeli, Bolu, Eskisehir, Kutahya, and Afyon, met with the relatives of some Turkish workers in West Germany following the noon prayer at the Selimiye Mosque.

Imam Abdulhalis Wendel, a West German citizen known as the right hand of Cemalettin Kaplan, held a press conference in front of the Mevlana Museum. Wendel said that in their group of 30 pilgrimage candi

dates, one is an Italian, seven are Dutch, and the rest are German Muslims belonging to the Nakshibendi denomination. He added the following: "We departed for pilgrimage on a bus we rented in Germany. However, we are also visiting the relatives of Turkish workers in West Germany who are members of our group which we call tekke."

The men of "Dark Voice" are being followed step by step by the officials of Konya Police Department's Political Desk and the National Intelligence Organization, and their every movement is being videotaped.

The novices, who tied a white banner on their green bus as the symbol of pilgrimage, following Konya, will stop in Icel, Urfa, and Adana, and then leave Turkey for pilgrimage.

12777/7310

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